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SC5 Glossary

*Developed by
ISO TC 184 SC5 - Vocabulary Consistency Study Group*

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This document results from the the work of the SC5 study group based on the SC5 resolutions, 391 (Beijing) [1], and 418 (Las Vegas) [2].

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Introduction

The intention of this document is to guide SC5 working groups and other interested parties in their standardization work by providing them with an overview of definitions already available in SC5 standards.

The definitions provided in the Definition clause of 15 existing SC5 standards and other selected ISO standards. With several of the standards being multi-part documents a total of 29 documents (see Reference I ISO Standards used in this glossary) have been analysed and compared with definitions found in public domain dictionaries¹ (see Reference II Public Domain Dictionaries used in his glossary). The resulting glossary in tabular form is presented in the remainder of this document. Table 1 shows the glossary table layout.

Table 1: Layout of SC5 Glossary

| | <i>Context</i> | <i>Public Term</i> Standards Term Proposed Term | <i>Public Definition</i> Standards Definition Proposed Definition | <i>Public Reference</i> Standard Reference Proposed by (dns) = David Shorter, (jjm) = Jean-Jacques Michel, (kk) = Kurt Kosanke (nl) = Neal Laurance |
|--|----------------|--------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|--|----------------|--------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Starting with a running number, which numbers the particular term, the table identifies the context in which a terms is used. The Context column tries to identified the different subject areas that the standards address. The following subject areas are identified: *general, communication, modeling, ontology, process* and *software*.

The term column is alphabetically organized, presenting a total of 327 different terms listed under the original term as identified in the standard. For all single word terms the *Public Term* from various references is provided in addition to the Standards Term and a **Proposed Term** is identified. The latter – usually a two word term – is proposed to signify the difference between the public meaning and that intended in the particular standard.

The definitions for all terms are collected in the definition column. Again *Public Definition*, Standards Definition and **Proposed Definition** are provided. The latter results from editor reviews and attempts to improve particular definitions (proposers are identifies by their initials. **Proposed Definition** are to be understood as recommendations for use going forward.

All references are identified in the reference column, which also identifies the proposer of alternative definitions.

Rationale

One of the reasons for this work was the inconsistency between definitions identified in the different standards and confusion with the public meaning.

Tables 2 and 3 illustrate these problems on the terms abstract/abstraction and attribute. Table 2 highlights the differences in public meaning as well as the semantic differences of its syntax. It also demonstrates the inconsistencies between the public meaning and the intended meaning of the standard definitions in ISO 14258 and ISO CEN 19439. The reason for this difference in meaning is the intention to be more specific in the standard and therefore constrain the general meaning. But rather than

¹ The ISO/IEC JTC1 System and Software engineering vocabulary has been included as part of the public definitions

Note: this standard collects definitions from standards and literature (with reference) and also provides own definition no (reference). The latter are at the end of the particular set of definitions.

using the general term and redefining its meaning in the Definition clause of the document, it is much less confusing for the reader if the intended constraints are made visible in the term itself as used throughout the document. In the particular case this inconsistency is proposed to be resolved by adding the qualifier <modeling> to the term **abstraction** (or by renaming it as **abstraction for modeling**).

Table 2: Example of definition inconsistencies

| | Context | Public Term Standards Term Proposed Term | Public Definition Standards Definition Proposed Definition | Public Reference Standard Reference Proposed by |
|--|----------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| | general | <i>abstract (noun)</i> | <i>a condensed version of a piece of writing, speech, etc; summary 1) a concept or idea not associated with any specific instance; 2) a sketchy summary of the main points of an argument or theory</i> | Collins Dictionary WordNet 2.1 |
| | | <i>abstract (verb.)</i> | <i>consider apart from a particular case or instance; To separate in mental conception; to consider apart from the concrete</i> | WordNet 2.1 COED |
| | | <i>abstract (adj.)</i> | <i>1) having no reference to material objects or specific examples, 2) not applied or practical; theoretical. 1) existing only in the mind; separate from embodiment, 2) dealing with a subject in the abstract without practical purpose or intention</i> | Collins Dictionary WordNet 2.1 |
| | | <i>abstraction (noun)</i> | <i>the process of formulating generalized concepts by extracting common qualities from specific examples 1) the process of formulating general concepts by abstracting common properties of instances, 2) a general concept formed by extracting common features from specific examples something which exists only as an idea 1) a view of an object that focuses on the information relevant to a particular purpose and ignores the remainder of the information, 2) the process of formulating a view.</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | abstraction <modeling> | <i>a shortening in duration or extent with no sacrifice of sense, used to differentiate between a real-world system and a model of the real world</i> | ISO 14258 ISO/CEN 19439 |

Table 3 shows the inconsistencies between the definitions of the same term as provided by different standards as well as with the public definitions. Again the proposed solution of the inconsistency is adding a qualifier or by using a more expressive phrase to make the intended constraint visible. In the particular example the first four standards use the same (ISO 15531/ISO 15704) or a rather similar definition (ISO CEN 19439/40). Therefore either a qualifier <enterprise entity> or a new phrase **enterprise entity attribute** would resolve the conflict. For the other two standards (ISO 9506 and ISO 20242) the intended meaning is again different. Therefore different qualifiers are proposed to identify these different meanings. But there remains the question of the validity of the term attribute itself.

Table 3: Example of definition inconsistencies

| | <i>Context</i> | <i>Public Term</i> Standards Term Proposed Term | <i>Public Definition</i> Standards Definition Proposed Definition | <i>Public Reference</i> Standard Reference Proposed by |
|--|-----------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| | <i>modeling</i> | <i>Attribute</i> | <i>a property, quality or feature belonging to or representative of a person or thing</i> <i>an abstraction belonging to or characteristic of an entity</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | attribute <enterprise entity> enterprise entity attribute | a piece of information stating a property of an enterprise entity. a piece of information stating a property of an entity | ISO 15531-31/32 ISO 15704 ISO/CEN 19439/40 |
| | | attribute <data element> | a data element, having a defined meaning, together with a statement of the set of possible values it may take. attribute versus Parameter as naming convention for a data object to decide between special access possibilities depending on states | ISO 9506-1/2 ISO 20242-3/4/5 |
| | | attribute< naming convention> parameter <naming convention> | | |

The issue of multiple definitions seems to have two sources: a) unawareness of available definitions (from public dictionaries and from other standards) and, b) the tradition in standardisation committees to use and redefine terms, which have a public meaning, for a specific purpose. However, since these redefinitions only appear in the Definition clause of the standard, the reader is inclined to use the public meaning rather than the constrained meaning intended by the committee.

Table 4: Example of reuse of definition from another standard

| | <i>Context</i> | <i>Public Term</i> Standards Term Proposed Term | <i>Public Definition</i> Standards Definition Proposed Definition | <i>Public Reference</i> Standard Reference Proposed by |
|--|-----------------|--------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------|
| | <i>Process</i> | <i>action</i> | something, which happens [ISO/IEC 10746-2]. | ISO 15745-1 |
| | <i>Software</i> | <i>application</i> | defined in ISO 10303-1 | ISO 15531-32 |

Still another problem may occur through the reuse of definitions provided in a different standard. To avoid problems for the reader of an International Standard document both the definition and the reference should be provided in the document reusing the definition. Table 4 shows two examples: one recommended (ISO 15745) and one not recommended (ISO 15531). Whereas the definition of action in ISO 15745 includes the origin of the definition (ISO/IEC 10746-2, the term application, which is used in ISO 15531 part 32, identifies the origin of the definition (ISO 10303 part 1) only. This practice should be abandoned because the availability of the referenced standards is not a priori guaranteed. Normative references must be available and applied consistent with their purpose.

Note: Terms and definition of the second type have not been included in the SC5 Glossary.

History

The SC5 Vocabulary Study Group was established according to SC5 Resolutions 319 (Beijing, 2001-05-17/18) [1] and 418 (Las Vegas, 2002-04-18/29) [2] (see Reference III - relating to the work of the study group) following a request for terminology harmonization by the SC5 chairman E. DelaHostria.

The progress of the work has been continuously reported to the SC5 plenary meeting and a total of 24 documents have been made available at the SC5 web board (<http://forums.nema.org/wb/default.asp?boardid=13>) under Terminology Study Group with a document list providing registration number and title [3]. In addition to the direct work on the collection and comparison of terms and definition as identified in section 3 of the standards documents a considerable effort has been made in analyzing the use of the defined terms in the documents themselves [4]. This analysis revealed even more inconsistent use of terms. Rather than using the terms according to their definition as single word terms very often they have been concatenated with other terms thereby changing the intended meaning.

The final report of the study group was presented at the SC5 meeting in Monterrey, 2006-25-25/26 resulting in Resolution 522 [5] leading to the acceptance of the work and the recommendation to consult SC5 work group editors [6] for comments and recommendations. Not all SC5 editors contributed to the two rounds of consolidation, which have lead to the final version of the current SC5 glossary.

Note for the Reader: Please send any comments or suggestions to the authors

SC5 Glossary

| | <i>Context</i> | <i>Public Term</i> Standards Term Proposed Term | <i>Public Definition</i> Standards Definition Proposed Definition | <i>Public Reference</i> Standard Reference Proposed by (dns) = David Shorter, (jjm) = Jean-Jacques Michel, (kk) = Kurt Kosanke (nl) = Neal Laurance |
|----|-------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <i>modeling</i> | <X> Template | specification of the common features of a collection of <X>s in sufficient detail that an <X> can be instantiated using it [ISO/IEC 10746-2]. | ISO 15745-1 |
| 2. | A-C <i>modeling</i> | AA-specific (Application Association specific) | an adjective used to describe an object whose name has a scope that is a single application association (i.e. the name may be referenced only on the application association with respect to which the object was defined). | ISO 9506-1/2 |
| 3. | <i>general</i> | <i>abstract (noun)</i> | <i>a condensed version of a piece of writing, speech, etc; summary</i> 1) a concept or idea not associated with any specific instance; 2) a sketchy summary of the main points of an argument or theory | Collins Dictionary WordNet 2.1 |
| | | <i>abstract (verb.)</i> | <i>consider apart from a particular case or instance;</i> <i>to separate in mental conception; to consider apart from the concrete</i> | WordNet 2.1 COED |
| | | <i>abstract (adj.)</i> | 1) having no reference to material objects or specific examples, 2) not applied or practical; theoretical. 1) existing only in the mind; separate from embodiment, 2) dealing with a subject in the abstract without practical purpose or intention | Collins Dictionary WordNet 2.1 |
| | | <i>abstraction (noun)</i> | <i>the process of formulating generalized concepts by extracting common qualities from specific examples</i> 1) the process of formulating general concepts by abstracting common properties of instances, 2) a general concept formed by extracting common features from specific examples something which exists only as an idea 1) a view of an object that focuses on the information relevant to a particular purpose and ignores the remainder of the information, 2) the process of formulating a view. | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | abstraction <modeling> | a shortening in duration or extent with no sacrifice of sense, used to differentiate between a real-world system and a model of the real world | ISO 14258 ISO/CEN 19439 |
| | | | | |
| 4. | <i>process</i> | abstract test case ATC abstract test suite ATS | specification, encapsulating at least one test purpose, that is independent of implementation platform, parameter values, and methods set of abstract test cases. | ISO 16100-4 ISO 16100-4 |
| 5. | <i>process</i> | <i>acquirer</i> | 1) a person who acquires something, 2) a corporation gaining financial control over another corporation or financial institution through a payment in cash or an exchange of stock | WordNet 2.1 |

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| | | | an organization that procures a system, software product, or software service from a supplier. (The acquirer could be a buyer, customer, owner, user, or purchaser.) | ISO/IEC 25061 (IEEE 1471) |
| 6. | process | action | <p><i>the state or process of doing something or being active</i></p> <p>1) <i>the state of being active; 2) something done</i></p> <p>1) <i>the process of doing something to achieve an aim. 2) a thing done.</i></p> <p>1) <i>element of a step that a user performs to complete a procedure. IEEE 1063-2001 2) a description of an operation to be taken in the formulation of a solution. ISO 5806:1984 something, which happens [ISO/IEC 10746-2].</i></p> | <p>Collins Dictionary</p> <p>WordNet 2.1</p> <p>OCED</p> <p>ISO/IEC 24765</p> |
| | | action <MAPLE> | elemental description of a work request to external Manufacturing Software Programs or other MAPLES | <p>ISO 15745-1</p> <p>ISO 13281-2</p> |
| 7. | process | activity | <p><i>any specific action or pursuit</i></p> <p><i>the state of being active</i></p> <p>1) <i>a condition in which things are happening or being done 2) an action taken in pursuit of an objective.</i></p> <p>1) <i>set of cohesive tasks of a process. ISO/IEC 12207:2008, ISO/IEC 15288:2008</i></p> <p>2) <i>a component of work performed during the course of a project. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 3) an order submitted to the system under test (SUT) by a user or an emulated user demanding the execution of a data processing operation according to a defined algorithm to produce specific output data from specific input data and (if requested) stored data. ISO/IEC 14756:1999 4) a defined body of work to be performed, including its required input information and output information. IEEE 1074-2006</i></p> | <p>Collins Dictionary,</p> <p>WordNet 2.1</p> <p>OCED</p> <p>ISO/IEC 24765</p> |
| | | activity <process> process activity | action that a system performs on its universe of discourse in the framework of a process operation. | Proposed by (jjm) |
| 8. | process | activity operation <i>(copied from operation)</i> | <p>execution of activities involved in the achievement of enterprise purpose or of a part of it</p> <p>template (program code) or entity (running program) to execute activities involved in the achievement of device handling or of a part of it</p> | <p>Proposed by (jjm)</p> <p>ISO 20242-3/4/5 WD</p> |
| 9. | process | activity scheduling <i>(copied from scheduling)</i> | act, function or result of planning occurrences of manufacturing activities. | ISO 15531-1/42/43 |
| 10. | modeling | actor | <p><i>Thesaurus: agent, doer, operator, participant, others</i></p> <p><i>a person who acts and gets things done</i></p> <p>1) <i>a role (with respect to that action) in which the enterprise object fulfilling the role participates in the action. ISO/IEC 15414:2006 2) organization or CASE tool that supplies and/or acquires SEE Services. ISO/IEC 15940:2006 3) in UML, someone or something outside the system that interacts with the system.</i></p> | <p>Collins Dictionary</p> <p>WordNet 2.1</p> <p>ISO/IEC 24765</p> |
| | | actor <modeling> | coherent set of roles that users of use cases play when interacting with these use cases [UML] | ISO 15745-1 |
| 11. | process | advanced planning | production planning over time horizons of months or years using constraint models that treat | ISO 16100-1 |

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| | | | both materials and capacity | |
| 12. | modeling | aggregate (noun) | formed of separate units collected into a whole a sum total of many heterogeneous things taken together constituted by a collection of many units into one body | Collins Dictionary WordNet 2.1 COED |
| | | aggregate (verb) | taken as a whole gather in a mass, sum, or whole | Collins Dictionary WordNet 2.1 |
| | | aggregate (adjective) | formed of separate units in a cluster 1) gathered or tending to gather into a mass or whole; 2) a collection into a whole | Collins Dictionary WordNet 2.1 |
| | | aggregation <enterprise modeling> | process of, or result of, combining modeling language constructs and other model components into a whole entity aggregation of enterprise modeling element rather than enterprise modems | ISO/CEN 19440 Proposed by (jjm) |
| 13. | software | aggregation | 1) several things grouped together; 2) the act of gathering something together | WordNet 2.1 |
| | | aggregation <relationship> | special form of association that specifies a whole-part relationship between the aggregate (whole) and a component part [UML] | ISO 15745-1 |
| | | aggregation <enterprise modeling> (copied from aggregate) | process of, or result of, combining modeling language constructs and other model components into a whole entity aggregation of enterprise modeling element rather than enterprise modems | ISO/CEN 19440 Proposed by (jjm) |
| 14. | software | AIP developer | person (or persons) who uses the application integration framework to develop integration models and/or profiles | ISO 15745-1 |
| 15. | software | application | a program that gives a computer instructions that provide the user with tools to accomplish a task 1) a system for collecting, saving, processing, and presenting data by means of a computer. ISO/IEC 24570:2005, 2) a coherent collection of automated procedures and data supporting a business objective. ISO/IEC 20968:2002, 3) a cohesive collection of automated procedures and data supporting a business objective. ISO/IEC 20926:2003, | WordNet 2.1 ISO/IEC 24765 |
| | | application program | resource designed to help users perform a specific task. | ISO 20242-1 |
| | | application program service interface | interface to communicate with a coordinator | ISO 20242-1 |
| | | application dependent requirement | a requirement related to the usage of the time-critical communications architecture and should be independent of the implementation | ISO/TR 13283 |
| | | application entity (AE) | part of the application process that deals with the communications system | ISO/TR 13283 |
| 16. | general | architect | a person qualified to design buildings and to supervise their erection someone who creates plans to be used in making something the person, team, or organization responsible for systems architecture. IEEE 1471-2000 | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | architect <systems>; system architect | the person, team, or organization responsible for systems architecture. system stakeholder responsible for systems architecture. | ISO/IEC 25061 (IEEE 1471) ISO/IEC ISWD 42010 |
| 17. | general | architecting | the activities of defining, documenting, maintaining, improving, and certifying proper implementation of an architecture. IEEE 1471-2000 | ISO/IEC 24765 |
| | | | the activities of defining, documenting, maintaining, improving, and certifying proper im- | ISO/IEC 25061 (IEEE 1471) |

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|-----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | <p>plementation of architecture. Set of interrelated activities of conceiving, defining, describing, documenting, maintaining, improving, and certifying proper implementation of an architecture throughout a system's life cycle.</p> | ISO/IEC WD 42010 |
| 18. | general | <p>architectural description (AD)</p> <hr/> <p>architectural framework</p> <hr/> <p>architectural model</p> <p>architectural rationale</p> <p>architectural view</p> <hr/> <p>architectural viewpoint</p> | <p><i>a collection of products to document an architecture. IEEE 1471-2000</i></p> <hr/> <p>a collection of products to document architecture.</p> <hr/> <p>collection of information items used to describe an architecture.</p> <hr/> <p>set of common practices for architectural description established within a specific domain or stakeholder community.</p> <hr/> <p>model , which contributes to the content of an architectural view.</p> <hr/> <p>explanation or justification for an architectural decision</p> <hr/> <p>representation of a system from the perspective of an identified set of architecture related concerns.</p> <hr/> <p>conventions for the construction, interpretation and use an architectural and its contributing architectural models.</p> | <p><i>ISO/IEC 24765</i></p> <hr/> <p>ISO/IEC 25061 (IEEE 1471)</p> <hr/> <p>ISO/IEC WD1 42010</p> <hr/> <p>ISO/IEC WD1 42010</p> <hr/> <p>ISO/IEC WD1 42010</p> <hr/> <p>ISO/IEC WD1 42010</p> <hr/> <p>ISO/IEC WD1 42010</p> <hr/> <p>ISO/IEC WD1 42010</p> |
| 19. | general | <p>architecture <of something – GERAM Type I></p> <hr/> <p>architecture <for something – GERAM Type II></p> <hr/> <p>architecture <systems></p> <p>systems architecture</p> | <p><i>the structure or design of anything</i> <i>an architectural product or work</i> <i>(computer science) the structure and organization of a computer's hardware or system software;</i> <i>3) the complex structure of something. 4) the conceptual structure and logical organization of a computer or a computer- based system.</i> the structure of components, their relationships, and the principles and guidelines governing their design and evolution over time</p> <hr/> <p><i>the discipline dealing with the principles of design and construction and ornamentation of fine buildings;</i> <i>(computer science) the structure and organization of a computer's hardware or system software;</i> <i>1) the art or practice of designing and constructing buildings. 2) the style in which a building is designed and constructed.</i> the structure of components, their relationships, and the principles and guidelines governing their design and evolution over time</p> <hr/> <p><i>1) fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design and evolution. ISO/IEC 15288:2008, 2) the organizational structure of a system or component, 3) the organizational structure of a system and its implementation guidelines.</i></p> <hr/> <p>the fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design/development and</p> | <p><i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>WordNet 2.1</i></p> <hr/> <p><i>COED</i></p> <hr/> <p><i>IEEE STD 610.12, as extended slightly by the IAP of the ITF_ (dns)</i></p> <hr/> <p><i>WordNet 2.1</i></p> <hr/> <p><i>COED</i></p> <hr/> <p><i>IEEE STD 610.12, as extended slightly by the IAP of the ITF (dns)</i> <i>ISO/IEC 24765</i></p> <hr/> <p>ISO/IEC 25061 (IEEE 1471)</p> |

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| | | | <p>evolution</p> <p>fundamental conception of a system in its environment embodied in its elements, their relationships to each <i>159</i> other and to its environment, and the principles guiding its design and evolution</p> <p>a description (model) of the basic arrangement and connectivity of parts of a system (either a physical or a conceptual object or entity)</p> | <p>ISO/IEC WD1 42010</p> <p>ISO 15704</p> |
| 20. | modeling | area | <p><i>the range or scope of anything</i></p> <p><i>a subject of study</i></p> | <p>Collins Dictionary</p> <p>WordNet 2.1</p> |
| | | <p>area <manufacturing site></p> <p>Manufacturing area</p> | <p>manufacturing area</p> | <p>IEC/ISO 62264-1</p> |
| 21. | modeling | association | <p><i>not relevant; Thesaurus: bond, connection, correlation, identification, joining, linkage, linking, pairing, relation</i></p> <p><i>1) the act of consorting or joining with others 2) a social or business relationship.</i></p> <p><i>1) a relationship (binding) between protocol objects (or between a protocol object and an interceptor) that is established independently of the protocol exchanges that support a particular computational interaction. ISO/IEC 14752:2000,</i></p> <p><i>2) in UML, a relationship between an actor and a use case that indicates that the actor interacts with the system by means of the use case.</i></p> | <p>Collins Dictionary</p> <p>WordNet 2.1</p> <p>ISO/IEC 24765</p> |
| | | <p>association <UML></p> | <p>semantic relationship between two or more classifiers that specifies connections among their instances [UML]</p> | <p>ISO 15745-1</p> |
| 22. | software | <p>association <classifiers></p> <p>classifier association</p> | <p>semantic relationship between two or more classifiers that specifies connections among their instances [ISO/IEC 19501-1]</p> | <p>ISO 16100-2</p> |
| 23. | modeling | attribute | <p><i>a property, quality or feature belonging to or representative of a person or thing</i></p> <p><i>an abstraction belonging to or characteristic of an entity</i></p> <p><i>1) a property associated with a set of real or abstract things that is some characteristic of interest. IEEE 1320.2-1998 (R2004), 2) inherent property or characteristic of an entity that can be distinguished quantitatively or qualitatively by human or automated means. ISO/IEC 25000:2005, 3) a measurable physical or abstract property of an entity. IEEE 1061-1998 (R2004), 4) an identifiable association between an object and a value. ISO/IEC 19500-2:2003, 5) a function from the instances of a class to the instances of the value class of the attribute. IEEE 1320.2-1998 (R2004), 6) a unique item of information about an entity. ISO/IEC 20968:2002 7) a single-valued characteristic of an entity or relationship. ISO/IEC 15474-1:2002</i></p> | <p>Collins Dictionary</p> <p>WordNet 2.1</p> <p>ISO/IEC 24765</p> |
| | | <p>attribute <enterprise entity></p> <p>enterprise entity attribute</p> | <p>a piece of information stating a property of an enterprise entity.</p> | <p>ISO 15531-31/32</p> <p>ISO 15704</p> <p>ISO/CEN 19439/40</p> <p>ISO 9506-1/2</p> |
| | | <p>attribute< naming convention></p> | <p>a piece of information stating a property of an entity</p> <p>a data element, having a defined meaning, together with a statement of the set of possible values it may take.</p> <p>attribute versus Parameter as naming convention for a data object to decide between special</p> | <p>ISO 20242-3/4/5</p> |

| | | | | |
|-----|-----------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| | | parameter <naming convention> | access possibilities depending on states | |
| 24. | <i>ontology</i> | automorphism | a one-to-one mapping of elements on a set that preserves the relations and functions in some model. | ISO 18629-13/43 |
| 25. | <i>process</i> | available capacity | portion of the production capacity that can be attained but is not committed to current or future production | IEC/ISO 62264-1 |
| 26. | <i>ontology</i> | <i>axiom</i> | <i>a generally accepted proposition or principle, sanctioned by experience a proposition that is not susceptible of proof or disproof, its truth is assumed to be self-evident</i> | <i>Collins Dictionary WordNet 2.1</i> |
| | | axiom <AI> | well-formed formula in a formal language that provides constraints on the interpretation of symbols in the lexicon of a language [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 27. | <i>general</i> | base specification | reference document containing information that is referenced by a profile base standard or widely accepted and available specification | ISO 15745-1 ISO 16100-2 |
| 28. | <i>software</i> | basic semantic register | the basic register of semantics units | ISO 15531-1 |
| 29. | <i>modeling</i> | <i>behavior</i> | <i>the reaction or functioning under normal or specific circumstances the action or reaction of something (as a machine or substance) under specified circumstances 1) observable activity of a system, measurable in terms of quantifiable effects on the environment whether arising from internal or external stimulus. IEEE 1175.1-2002, 2)the peculiar reaction of a thing under given circumstances. IEEE 1175.1-2002, 3) the aspect of an instance's specification that is determined by the state-changing operations it can perform. IEEE 1320.2-1998 (R2004)</i> | <i>Collins Dictionary WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | behavior <system element> system behavior | how an element acts and reacts. how the whole or part of the system acts and reacts manner in which the whole or part of a system acts and reacts to perform a function [Adapted from ISO 15704:2000]. | ISO 14258 ISO 15704 ISO/CEN 19439 |
| | | behavioral rule | description of the logical sequencing relationships of constituent activities used in the specification of Business Process behavior | ISO/CEN 19440 |
| 30. | <i>process</i> | bill of lading | <i>a document containing full particulars of goods shipped a receipt given by the carrier to the shipper acknowledging receipt of the goods being shipped and specifying the terms of delivery</i> | <i>Collins Dictionary WordNet 2.1</i> |
| | | bill of lading BOL | contract or receipt for goods that a carrier agrees to transport from one place to another and to deliver to a designated person or that it assigns for compensation upon the conditions stated therein. | IEC/ISO 62264-1 |
| 31. | <i>process</i> | bill of material BOM | <i>a documented formal hierarchical tabulation of the physical assemblies, subassemblies, and components needed to fabricate a product. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition.</i> | <i>ISO/IEC 24765</i> |
| | | | listing of all the subassemblies, parts, and/or materials that are used in the production of a product including the quantity of each material required to make a product. | IEC/ISO 62264-1 |

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| 32. | <i>process</i> | bill of resources | listing of all resources and when in the production process they are needed to produce a product. | IEC/ISO 62264-1 |
| 33. | <i>process</i> | <i>business</i> | <i>1) a trade or profession; 2) the purchase and sale of goods and services; 3) a commercial or industrial establishment</i> <i>the activity of providing goods and services involving financial and commercial and industrial aspects</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | business process | <i>1) a person's regular occupation or trade 2) work to be done or matters to be attended to</i> a partially ordered set of activities of an enterprise which can be executed to realise a given objective of the enterprise or a part of the enterprise to achieve some desired end-result. a partially ordered set of enterprise activities that can be executed to realise a given objective of an enterprise or a part of an enterprise to achieve some desired end-result partially ordered set of enterprise activities that can be executed to achieve some desired end-result in pursuit of a given objective of an enterprise or a part of an enterprise [Adapted from ENV 12204:1996]] | <i>OCED</i> ISO 15531-31 ISO 15704 ISO/CEN 19439 |
| | | Business Process <enterprise modeling construct> | construct that represents a partially ordered set of Business Processes or Enterprise Activities or both that can be executed to realise one or more given objectives of an enterprise or a part of an enterprise to achieve some desired end-result | ISO/CEN 19440 |
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| 34. | <i>software</i> | CAD/PDM | computer systems that are used for product design and modeling, engineering, product data management, and process data management. | ISO 16100-1 |
| 35. | <i>communication</i> | called MMS-user: | the MMS-user that issues the Initiate. response service primitive. | ISO 9506-1/2 |
| 36. | <i>communication</i> | calling MMS-user: | the MMS-user that issues the Initiate. request service primitive. | ISO 9506-1/2 |
| 37. | <i>process</i> | <i>Capability</i> | <i>the quality of being capable (having ability; competent)</i> <i>the quality of being capable – physically or intellectually or legally</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | capability <action> | ability to perform actions, including attributes on qualifications and measures of the ability as capacity | IEC/ISO 62264-1 |
| | | resource capability | quality of being able to perform a given activity | ISO 15531-1/32/43 ISO/CEN 19439/40 |
| | | capability <activity> | | ISO 16100-2/5 |
| | | capability class | an element within the capability profiling method that represents software unit functionality and behavior with regard to the software units role in a manufacturing activity | ISO 16100-5 |
| | | software capability class | XML schema representing a hierarchy of capability classes | ISO 16100-2 |
| | | capability class structure template | process in which two or more software units interoperate using equivalent interfaces that are configured in a compatible manner as indicated by their capability profiles | ISO 16100-3 |
| | | capability profile integration | functional (implementation-independent) service access point that provides a set of services described in 5.4 of this part of ISO 16100 to handle capability profiles | ISO 16100-3 |
| capability profile interface | software that implements the capability profile interface | ISO 16100-3 | | |
| capability profile service provider | selection of a set of offered services defined by a particular interface within a software inter- | ISO 16100-1 | | |
| capability profiling | | | | |

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| | | capability <software> | operability framework. set of functions and services with a set of criteria for evaluating the performance of a capability provider. | ISO 16100-1 |
| | | Capability <enterprise modeling construct> | construct that represents the collection of capability characteristics (expressed as capability attributes) of either a Resource (its provided Capability) or an Enterprise Activity (its required Capability) | ISO/CEN 19440 |
| 38. | process | capacity | <i>the ability to do or produce</i> 1) <i>ability to perform or produce; 2) the amount that can be contained, 3) the maximum production possible</i> 1) <i>the maximum amount that something can contain or produce. 2) the ability or power to do something</i> | Collins Dictionary WordNet 2.1 OCED |
| | | capacity planning | measure of the ability to take action, a subset of a capability capability of a system, sub-system or resource to perform its expected function from a quantitative point of view the process of determining the required capacities for expected production. | IEC/ISO 62264-1 ISO 15531-1/32/43, ISO 15531-1 |
| 39. | software | CAPP/CAM | computer systems that are used for process planning and programming of numerically controlled machines. | ISO 16100-1 |
| 40. | process | carrying process; transportation process | process that support flows between other processes | ISO 15531-43 |
| 41. | process | certificate | <i>an official document attesting the truth of the facts stated</i> <i>a document attesting to the truth of certain stated facts</i> | Collins Dictionary WordNet 2.1 |
| | | certificate of analysis-COA | certification of conformance to quality standards or specifications for products or materials | IEC/ISO 62264-1 |
| 42. | general | class | <i>a collection or division of things or people sharing a common characteristic</i> 1) <i>a collection of things sharing a common attribute; 2) a taxonomic group containing on or more orders</i> <i>a set or category of things having a common characteristic and differentiated from others by kind or quality</i> 1) <i>an abstraction of the knowledge and behavior of a set of similar things. IEEE 1320.2-1998 (R2004), 2) a static programming entity in an object-oriented program that contains a combination of functionality and data.</i> | Collins Dictionary WordNet 2,1 OCED ISO/IEC 24765 |
| | | class <model> | abstraction representing and encapsulating properties, relationships, and behavior, which distinguish a collection of similar phenomena. | ISO/CEN 19440 |
| | | model class class <UML> | description of a set of objects that share the same attributes, operations, methods, relationships, and semantics [UML] | ISO 15745-1 |
| | | class (of <X>s) | the set of all <X>s satisfying a type [ISO/IEC 10746-2] | ISO 20242-3/4/5 WD |
| 43. | general | classification (noun) | <i>systematic placement in categories</i> 1) <i>the act of distributing things into classes or categories of the same type, 2) the basic cognitive process of arranging into classes or categories</i> 1) <i>a choice within a category. IEEE 1044-1993 (R2002), 2) the manner in which the assets</i> | Collins Dictionary WordNet 2,1 ISO/IEC 24765 |

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| | | | <i>are organized for ease of search and extraction within a reuse library. IEEE 1517-1999 (R2004)</i> | |
| | | classify (verb) | <i>arrange or order by classes or categories, assign to a class or kind</i> 1) <i>arrange (a group) in classes according to shared characteristics.</i> 2) <i>assign to a particular class or category</i> | WordNet 2.1 OCED |
| | | classification <abstractions> classification of abstractions | the process of arranging abstractions into a structure organized according to their distinguishing properties. process of arranging abstractions into a structure, organized according to their distinguishing properties, relationships and behavior | ISO 15531-31/32 ISO/CEN 19440 |
| 44. | <i>general</i> | classifier | <i>a word or morpheme used in some languages in certain context to indicate the semantic class in which an item belongs</i> | Collins Dictionary WordNet 2.1 |
| | | classifier <UML> | mechanism that describes behavioral and structural features [ISO/IEC 19501-1, UML] | ISO 15745-1 ISO 16100-2 |
| 45. | <i>software</i> | classifier association <i>(copied from association)</i> | semantic relationship between two or more classifiers that specifies connections among their instances [ISO/IEC 19501-1] | ISO 16100-2 |
| 46. | <i>communication</i> | client | <i>a customer</i> <i>customer; (computer science) any computer that is hooked up to a computer network the code or process that invokes an operation on an object. ISO/IEC 19500-2:2003</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | client <VMD> VMD client | the peer communicating entity that makes use of the VMD for some particular purpose via a service request instance. | ISO 9506-1/2 |
| 47. | <i>modeling</i> | cluster | <i>a number of things growing, fastened or occurring close together</i> <i>a grouping of a number of similar things;</i> <i>a configuration of basic engineering objects forming a single unit for the purposes of deactivation, checkpointing, reactivation, recovery and migration. ISO/IEC 10746-3:1996</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | cluster <manufacturing resource> manufacturing resource cluster | set of manufacturing resource units | ISO 16100-3/4 |
| 48. | <i>process</i> | committed capacity | portion of the production capacity that is currently in use or is scheduled for use. | IEC/ISO 62264-1 |
| 49. | <i>communication</i> | communication object | existing object, which may be accessed with a communication function to read or write a value. described as template (class) and as entity (instance) | ISO 20242-1 ISO 20242-3/4/5 WD |
| | | communication network profile | representation of the integration aspects of a communication network supported by a networked device | ISO 15745-1 |
| 50. | <i>ontology</i> | commutative group | an algebraic structure with an internal binary operation (OP) with respect to which : a OP b = b OP a | ISO 18629-13 |
| 51. | <i>general</i> | compliance | <i>a disposition to yield to others;</i> 1) <i>acting according to certain accepted standards;</i> 2) <i>a disposition or tendency to yield to the will of others</i> | Collins Dictionary WordNet 2.1 |
| | | compliance <specification> | relation between two specifications, A and B, that holds when specification A makes re- | ISO 15745-1 |

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| | | compliance of specification | quirements, which are all fulfilled by specification B (when B complies with A) [ISO/IEC 10746-1]. specific relation between specifications that holds when e.g.-specification A makes requirements which are all fulfilled by specification B (B complies with A) | Proposed by (kk) |
| 52. | process | component | a constituent part or aspect of something more complex 1) something determined in relation to something that includes it; 2) an artifact that is one of the individual parts of which a composite is made up; especially a part that can be separated from or attached to a system a part or element of a larger whole. 1) a constituent part, element, or piece of a complex whole. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) an entity with discrete structure, such as an assembly or software module, within a system considered at a particular level of analysis. ISO/IEC 15026:1998, 3) one of the parts that make up a system. IEEE 1012-2004, 4) A component may be hardware or software and may be subdivided into other components. | Collins Dictionary WordNet 2.1 OCED ISO/IEC 24765 |
| | | component <product> product component | entity that is part of, or capable of becoming part of, a larger whole a product that is not subject to decomposition from the perspective of a specific application (ISO 10303-1) | ISO/CEN 19440 ISO 15531-32 |
| | | component <software> software component component <system> system component | part of a manufacturing software unit, including manufacturing software components entity, with discrete structure within a system, which interacts with other components of the system, thereby contributing at its lowest level to the system properties and characteristics [Adapted from ISO/IEC 15288:2002]. | ISO 16100-3 ISO/CEN 19439/40 |
| 53. | modeling | concept | something formed in the mind an abstract or general idea inferred or derived from specific instances | Collins Dictionary WordNet 2.1 |
| | | concept definition <model life cycle phase> | unit of knowledge created by a unique combination of characteristics enterprise model phase that defines the business concepts of an enterprise domain to be employed in realizing its business objectives and its operation, including the necessary enterprise domain inputs and outputs | ISO 1087-1(2000) ISO/CEN 19439/40 |
| 54. | modeling | concern (system concern) | something that interests you because it is important or affects you an area of interest relevant to a system pertaining to developmental, operational, political, regulatory, social, and other factors. | WordNet 2.1 ISO TC184 SC5/WG1 & JTC1 SC7/WG42 joint meeting |
| 55. | general | conformance | correspondence in form or appearance the fulfillment by a product, process or service of specified requirements. IEEE 12207.1-1997 | WordNet 2.1 ISO/IEC 24765 |
| | | conformance/conformity | relation between a specification and a real implementation that is realized when any proposition that is true in the specification is also true in the implementation | ISO 16100-4 |
| | | conformance building block (CBB) | an atomic unit used to describe MMS conformance requirements | ISO 9506-1/2 |
| | | conformance point | specific requirement contained in a set of sub clauses in ISO 16100 that are used as a basis to generate and perform a test to determine if an implementation is conformant | ISO 16100-4 |
| | | conformance statement | statement that identifies conformance points of a specification and the behavior that must be | ISO 16100-4 |

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| | | conformance testing/conformance assessment conformance test report | satisfied at these points [adapted from ISO/IEC 10746-2:1996, 15.1] testing of a candidate product for the existence of specific characteristics required by a standard in order to determine the extent to which that product is a conforming implementation test of a product for its conformance to the relevant standard in order to determine the conformance degree document written at the end of the conformance assessment process, that provides the overall summary of the conformance of the UUT to the standard for which conformance testing was carried out, and that gives the details of the testing document that provides the conformance test results of the product under test according to the related standard | ISO 16100-4 Proposed by (kk) ISO 16100-4 Proposed by (kk) |
| 56. | general | conforming implementation | implementation which satisfies the conformance requirements, consistent with the capabilities stated in the CSI [adapted from ISO 10303-31:1994, 3.2 24] implementation, that satisfies the conformance requirements | ISO 16100-4 Proposed by (kk) |
| 57. | ontology | conservative definition | definition that specifies necessary and sufficient conditions that a term shall satisfy and that does not allow new inferences to be drawn from the theory [ISO 18629-1] | ISO 18629-11 |
| 58. | general | constraint (noun) | <i>something that serves to constrain; restrictive condition</i> <i>1) the state of being physically constrained, 2) the act of constraining, the thread or use of force to control the thoughts or behavior of others</i> <i>urge irresistibly or by necessity</i> <i>1) a limitation or implied requirement that constrains the design solution or implementation of the systems engineering process and is not changeable by the enterprise. IEEE 1220-2005, 2) a restriction on software life cycle process (SLCP) development. IEEE 1074-2006, 3) a rule that specifies a valid condition of data. IEEE 1320.2-1998 (R2004), 4) a responsibility that is a statement of facts that are required to be true in order for the constraint to be met. IEEE 1320.2-1998 (R2004), 5) a restriction on the value of an attribute or the existence of any object based on the value or existence of one or more others. ISO/IEC 15474-1:2002, 6) an externally imposed limitation on system requirements, design, or implementation or on the process used to develop or modify a system. IEEE 1362-1998, 7) a statement that expresses measurable bounds for an element or function of the system. IEEE 1233, 1998 (R2002), 8) a semantic condition or restriction that describes a limitation or state.</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | constrain (verb) | <i>1) to compel, 2) to restrain as by force</i> <i>1) hold back, 2) restrict</i> | Collins Dictionary WordNet 2.1 |
| | | constraint <system> system constraint | restrictions and limitations on the system that can come from inside or outside the system under consideration. restriction or limitation or condition placed upon a system that originates from inside or outside the system under consideration restriction or limitation or condition placed upon a system | ISO 14258 ISO/CEN 19439/40 Proposed by (dns) |
| | | construct | <i>something formulated or built systematically</i> <i>an abstract or general idea inferred or derived from specific instances</i> | Collins Dictionary WordNet 2.1 |
| 59. | modeling | construct | | |

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| | | construct label construct template construct-based modeling language | <i>1) an idea or theory containing various conceptual elements. 2) a thing constructed.</i> literal string defined for each construct template, denoting the kind of construct. common structure that allows the identification and description of particular modeling language constructs and the assignment of their properties. set of constructs and rules for valid groupings, which define the syntax of the modeling language. | <i>OCED</i> ISO/CEN 19440 ISO/CEN 19440 ISO/CEN 19440 |
| 60. | <i>modeling</i> | construct instantiation <i>(copied from instantiation)</i> | creation of instances of modeling language constructs or partial models, and the possible assignment of values to some or all attributes. | ISO/CEN 19439/40 |
| 61. | <i>process</i> | <i>consumable</i> | <i>can be consumed</i> <i>may be used up</i> <i>a consumable commodity</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>OCED</i> |
| | | consumable <resources> | resources that are not normally included in bills of material or are not individually accounted for in specific production requests. | IEC/ISO 62264-1 |
| 62. | <i>process</i> | <i>Consumer</i> | <i>a person who purchases goods and services for his own personal needs</i> <i>a person who uses goods or services</i> <i>the organization or person who buys the software package. ISO 9127:1988</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | consumer <profile> consumer (of profile) | user of profile or Matching Level result | ISO 16100-3 |
| 63. | <i>process</i> | continuous process | a production process that lends itself to an endless flow of non-discrete product or component. | ISO 15531-1 |
| 64. | <i>process</i> | <i>control</i> | <i>1) to command, direct or rule; 2) a mechanism for operating a car, aircraft etc.</i> <i>1) power to direct or to determine; 2) a mechanism that controls the operation of a machine</i> <i>1) the restriction of an activity or phenomenon 2) a means of limiting or regulating something</i> <i>1) [Technique] comparing actual performance with planned performance, analyzing variances, assessing trends to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) in an IDEF0 model, a condition or set of conditions required for a function to produce correct output. IEEE 1320.2-1998 (R2004) 3) in engineering, the monitoring of system output to compare with expected output and taking corrective action when the actual output does not match the expected output.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>OCED</i> <i>ISO/IEC 24765</i> |
| | | control domain | in this standard, control domain is synonymous with the manufacturing operations and control domain. | IEC/ISO 62264-1 |
| 65. | <i>process</i> | <i>controller</i> | <i>the equipment concerned with controlling the operation of an electrical device</i> <i>a mechanism that controls the operation of a machine</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | controller <hybrid systems> hybrid system controller | hybrid hardware/software systems that are used for controlling machines. | ISO 16100-1 |
| 66. | <i>software</i> | <i>coordinator</i> | <i>someone whose task is to see that work goes harmoniously</i> | <i>WordNet 2.1</i> |

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| | | coordinator <program> coordination program | program with a specified interface to handle the access of an application program to one or more device drivers and to manage real-time application aspects, synchronization and events | ISO 20242-1 |
| 67. | <i>ontology</i> | core theory | set of predicates, function symbols and individual constants representing, together with some axioms, the primitive concepts of the ontology. | ISO 18629-11/13 |
| 68. | <i>process</i> | cost control | <i>[Process] the process of influencing the factors that create variances, and controlling changes to the project budget. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -Third Edition.</i> | ISO/IEC 24765 |
| | | | the application of procedures to monitor expenditures and performance against progress of projects and manufacturing operations with projected completion to measure variance from authorized budget and allow effective to be taken to achieve minimal cost. | ISO 15531-1 |
| 69. | D-F <i>software</i> | <i>data</i> | 1) a series of observations, measurements, or facts; information; 2) computers the information operated upon by a computer program a collection of facts from which conclusions may be drawn 1) facts and statistics used for reference or analysis 2) the quantities, characters, or symbols on which operations are performed by a computer 1) collection of values assigned to base measures, derived measures and/or indicators. ISO/IEC 25000:2005, 2) the representation forms of information dealt with by information systems and users thereof. ISO/IEC 10746-2:1996, 3) a reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or communication, or processing. ISO/IEC 2382-1:1993, 4) a representation of facts, concepts, or instructions in a manner suitable for communication, interpretation, or processing by humans or by automatic means. | Collins Dictionary WordNet 2.1 OCED ISO/IEC 24765 |
| | | data classification | representation of information in a formal manner suitable for communication, interpretation, or processing by human beings or computers (ISO 10303-1) | ISO 15531-1/32/43 |
| | | data classification catalogue | any representation to which meaning is or might be assigned (e.g. characters) | ISO 18629-11 ISO 9506-1/2 |
| | | data collection | identifier of a computer-readable representation of data for a specific application user-specified or vendor-specified unique collection of data classifications used within MAPLE | ISO 13281-2 ISO 13281-2 |
| | | data exchange | | |
| | | data source | gathering of information on work pieces, timing, personnel, lots, and other critical entities for production management in a timely manner. | ISO 16100-1 |
| | | data storage type | the storing, accessing, transferring, and archiving of data (ISO 10303-1) | ISO 15531-1/43 |
| | | data storage type catalogue | description of the data schema, data location and access method to the data for a particular data format that is registered in MAPLE | ISO13281-2 |
| | | data translator | a Manufacturing Software Tool for converting the representation of data.particular type of data storage system used. user-specified or vendor-specified unique collection of data storage types of the manufacturing databases connected to MAPLE manufacturing software program for converting the representation of data | ISO 13281 ISO13281-2 ISO13281-2 ISO13281-2 |
| 70. | <i>modeling</i> | <i>decision</i> | a judgment, conclusion, or resolution reached or given; verdict | Collins Dictionary |

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| | | | <i>a position or opinion or judgment reached after consideration</i> <i>the result of choosing between different courses of action.</i> | <i>WordNet 2.1</i> |
| | | decision Centre <enterprise modeling construct> | construct that represents a set of decision-making activities that are characterized by having the same time horizon and planning period and belonging to the same kind of functional category | ISO/CEN 19439 ISO/CEN 19440 |
| 71. | <i>modeling</i> | decisional <process> | relating to those processes that are concerned with making choices. | ISO/CEN 19439 |
| 72. | <i>modeling</i> | declarative rule | set of objectives and constraints combined with a non-computational set of conditions | ISO/CEN 19440 |
| 73. | <i>modeling</i> | decommission definition <model life cycle phase> | enterprise model phase that defines the final state of a decommissioned operational system, all its components for a particular enterprise domain, and the processes employed to conduct the decommissioning so enabling re-use or disposition of those components | ISO/CEN 19439/40 |
| 74. | <i>modeling</i> | <i>decompose (verb)</i> | <i>to break up or separate into constituent parts</i> <i>separate (substances) into constituent elements or parts</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | decompose <entity> | breaking an entity into its constituent parts as appropriate to the purpose of the modeler; | ISO/CEN 19439 |
| 75. | <i>modeling</i> | <i>decomposition (noun)</i> | <i>in a decomposed state</i> <i>the partitioning of a modelled function into its component functions. IEEE 1320.1-1998 (R2004)</i> | <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | | breaking an entity into its constituent parts as appropriate to the purpose of the modeler; | ISO/CEN 19439 |
| 76. | <i>ontology</i> | defined lexicon | set of symbols in the non-logical lexicon which denote defined concepts [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 77. | <i>modeling</i> | <i>definition</i> | <i>formal and concise statement of the meaning of a word, phrase, etc.</i> <i>a concise explanation of the meaning of a word or phrase or symbol</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | definition <resource characteristics> resource characteristics | set of resources properties that are characterized by physical values. | ISO 15531-31/32 |
| | | definition <resource views> resource views | classified set of resource views | ISO 15531-31/32 |
| 78. | <i>ontology</i> | definitional extension | extension of PSL-Core that introduces new linguistic items, which can be completely defined in terms of the PSL-Core [ISO 18629-1] | ISO 18629-14/43/44 |
| 79. | <i>modeling</i> | <i>derivation</i> | <i>the process of deducing a mathematical theorem , formula, etc., as a necessary consequence of a set of accepted statements</i> <i>a line of reasoning that shows how a conclusion follows logically from accepted propositions</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | derivation <enterprise modeling> | process of elaborating enterprise models at successive enterprise model phases from the models established at preceding phases, reusing the available contents and extending those according to the needs expressed for the particular model phase. | ISO/CEN 19440 |
| 80. | <i>process</i> | <i>design (verb)</i> | <i>1) to work out the structure or form of (something), as by making a sketch or plan; 2) a plan or preliminary drawing</i> | <i>Collins Dictionary</i> |
| | | <i>design (noun)</i> | <i>1) an arrangement scheme; 2) something intended as a guide for making something</i> <i>1) the process of defining the architecture, components, interfaces, and other characteristics of a system or component. 2) the result of the process in (1). 3) the process of defining the software architecture, components, modules, interfaces, and data for a software system to</i> | <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |

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| | | | <i>satisfy specified requirements. 4) the process of conceiving, inventing, or contriving a scheme for turning a computer program specification into an operational program. 5) activity that links requirements analysis to coding and debugging.</i> | |
| | | design knowledge | rules and logic that a human designer brings to bear on design problems, including design and implementation techniques. | ISO 16100-1 |
| | | design pattern | <i>a description of the problem and the essence of its solution to enable the solution to be re-used in different settings.</i> | ISO/IEC 24765 |
| | | design specification <life cycle phase> | medium-scale patterns, smaller in scale than architectural patterns, but at a higher level than the programming language-specific idioms. enterprise model phase that specifies the business processes, together with capabilities and rules that are to be performed to achieve the requirements. | ISO 16100-1 ISO/CEN 19439/40 |
| 81. | <i>modeling</i> | <i>detail</i> | <i>an item that is considered separately; particular an isolated fact that is considered separately from the whole</i> | <i>Collins Dictionary WordNet 2.1</i> |
| | | <i>detailing (noun)</i> | <i>an individualized description of a particular instance</i> | <i>WordNet 2.1</i> |
| | | <i>detailing (verb)</i> | <i>1) provide details for, 2) assign to a specific task</i> | <i>WordNet 2.1</i> |
| | | detailing <modeling> detailing of models | addition of content, attributes and operations, that more precisely identify the intent of modeling language constructs and partial models | ISO/CEN 19439 |
| 82. | <i>process</i> | <i>device</i> | <i>a machine or tool used for a specific task an instrument invented for a particular purpose a mechanism or piece of equipment designed to serve a purpose or perform a function.</i> | <i>Collins Dictionary WordNet 2.1 ISO/IEC 24765</i> |
| | | device <control> | any identified physical equipment, system or subsystem that does not belong to software, data set or human resource class. | ISO 15531-1/43 |
| | | device capability description | entity that performs control, actuating and/or sensing functions and interfaces to other such entities within an automation system | ISO 15745-1 |
| | | device driver | text file containing information about the capabilities of virtual devices in a defined format (i.e. structure, syntax) | ISO 20242-1 |
| | | device profile | program with an ISO 20242-specified interface containing service functions that call the platform adapter to access physical devices representation of the integration aspects of a device | ISO 20242-1 15745-1 |
| 83. | <i>software</i> | dictionary manager | a Manufacturing software Tool to facilitate the manipulation of the Manufacturing Data Dictionary and the Manufacturing Software Tool Dictionary. manufacturing software program to facilitate the manipulation of the Manufacturing Data Dictionary and the Manufacturing Software Dictionary | ISO 13281 ISO 13281-2 |
| 84. | <i>process</i> | discrete manufacturing | production of discrete items. | ISO 15531-1 /42/43 |
| 85. | <i>process</i> | division process | carrying process that divide flows in more other flows | ISO 15531-43 |
| 86. | <i>modeling</i> | <i>domain</i> | <i>a field or scope of knowledge or activity a particular environment or walk of life 1) a distinct scope, within which common characteristics are exhibited, common rules ob-</i> | <i>Collins Dictionary WordNet 1.7.1 ISO/IEC 24765</i> |

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| | | <i>domain (of interest)</i> | <i>served, and over which a distribution transparency is preserved. ISO/IEC 19500-2:2003, 2) a problem space. IEEE 1517-1999 (R2004)</i> | |
| | | domain <time> time domain | <i>a sphere of thought or action</i> | <i>COED</i> |
| | | domain <VMD> VMD domain | collection of one dimension elements, that can be ordered and positioned applying a given measure method | ISO 15531-42 |
| | | domain specific < MMS/VMD > MMS/VMD Domain | an abstract object that represents a subset of the capabilities of a VMD that is used for a specific purpose. | ISO 9506-1/2 |
| | | domain <enterprise modeling construct> | an adjective used to describe an object whose name has a scope that is a single Domain (i.e. the name can be referenced over all application associations established with the VMD that may reference this Domain). | ISO 9506-1/2 |
| | | domain identification <model life cycle phase> | construct that represents the portion of an enterprise to be modeled providing for identification of the relevant information. | ISO/CEN 19440 |
| | | domain operation <model life cycle phase> | enterprise model phase that identifies the enterprise domain to be modeled with respect to its business objectives, the enterprise domain inputs and outputs and their respective origins and destinations | ISO/CEN 19439/40 |
| | | | enterprise model phase that encompasses the operational use of the domain model. | ISO/CEN 19439/40 |
| 87. | <i>modeling</i> | domain point; point in a domain | domain element for which any defined measure of it in the domain is zero | ISO 15531-42 |
| 88. | <i>communication</i> | domain upload <i>(copied from upload)</i> | the process of transferring the content of a Domain, including any subordinate objects, via load data from a remote user, in such a manner as to allow subsequent download. | ISO 9506-1/2 |
| 89. | <i>communication</i> | <i>download</i> | <i>transfer of file or program from a central computer to a smaller computer or to a remote location</i> | <i>WordNet 2.1</i> |
| | | | <i>1) the copy (data) from one computer system to another or to a disk. 2) the act or process of downloading.</i> | <i>OCED</i> |
| | | | <i>1. to transfer programs or data from a computer to a connected computer with fewer resources. ISO/IEC 2382-1:1993</i> | <i>ISO/IEC 24765</i> |
| | | download <domain> domain download | the process of transferring the content of a Domain, including any subordinate objects, via load data to a remote user. | ISO 9506-1/2 |
| 90. | <i>process</i> | <i>duration</i> | <i>the length of time that something lasts or continues</i> | <i>Collins Dictionary</i> |
| | | <i>duration (DU or DUR).</i> | <i>the period of time during which something continues</i> | <i>WordNet 2.1</i> |
| | | | <i>the total number of work periods (not including holidays or other nonworking periods) required to complete a schedule activity or work breakdown structure component. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition.</i> | <i>ISO/IEC 24765</i> |
| | | duration, interval of time | length of a period of time, measured using a given unit of time | ISO 15531-42 ISO 18629-43 |
| 91. | <i>communication</i> | electronic data interchange (EDI) | automated exchange of predefined and structured data for business purpose among information systems of two or more partners. | ISO 15531-1 |
| 92. | <i>modeling</i> | <i>element</i> | <i>one of the fundamental or irreducible parts making up a whole</i> | <i>Collins Dictionary</i> |

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| | | | <i>an artifact that is one of the individual parts of which a composite entity is made up a component of a system; may include equipment, a computer program, or a human. IEEE 1233, 1998 Edition (R2002)</i> | WordNet 2.1 ISO/IEC 24765 |
| | | element <system> system element | a basic system part that has the characteristics of state, behavior, and identification static representation of a part of the universe of discourse that may be identified and characterized by its behavior and attribute | ISO 14258 ISO 15531-1/42 |
| | | element <model> model element | atomic constituent of a model [UML, ISO/IEC 19501-1] | ISO 15745-1 ISO 16100-2 |
| 93. | modeling | enactment | <i>to represent or perform as in a play</i> <i>acting the part of a character on stage</i> | Collins Dictionary WordNet 2.1 |
| | | enactment <model> model enactment | computer processing of models to facilitate the development of more responsive and coherent enterprises, in particular the use of a model to monitor and control the execution of the business processes of the enterprise. [Adapted from Vernadat] | ISO/CEN 19439 |
| 94. | ontology | endomorphism | <i>the changes produced in igneous rocks by the actions upon them of underlying and intrusive magnetic material</i> <i>In mathematics, an endomorphism is a morphism (or homomorphism) from a mathematical object to itself.</i> a mapping from a set onto a subset that preserves the relations and functions in some model. | Webster Wikipedia |
| 95. | modeling | enterprise | 1) a project or undertaking; 2) a company or firm 1) a purposeful or industrial undertaking; 2) an organization created for business venture 1) the organization that performs specified tasks. IEEE 1220-2005, 2) a company, business, firm, partnership, corporation, or governmental agency. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | | one or more organizations sharing a definite mission, goals and objectives to offer an output such as a product or service | ISO 15704 IEC/ISO 62264-1 ISO/CEN 19439 |
| | | | a group of organizations sharing a set of goals and objectives to offer products and services or both | ISO 14258 ISO 15531-1 |
| | | enterprise activity | all or part of process functionality that consists of elementary tasks performed in the enterprise that consume inputs and allocate time and resources to produce outputs all, or part, of the lowest level of process functionality required by user objectives that consists of functional operations performed in the enterprise that consume inputs and allocate time and resources to produce outputs | ISO/CEN 19439 ISO/CEN 19440 |
| | | | all, or part, of the lowest level of process functionality required by user objectives | Proposed by (kk) |
| | | enterprise domain domain | part of the enterprise considered relevant to a given set of business objectives and constraints for which an enterprise model is to be created | ISO/CEN 19439/40 |
| | | enterprise engineering | discipline applied in carrying out any efforts to establish, modify, or reorganize any enterprise | ISO 15704 ISO/CEN 19439 |
| | | enterprise entity | any concrete or abstract thing in the universe of discourse of an enterprise. | ISO 15531-1/43 |

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| | | enterprise integration | process of ensuring the interaction between enterprise entities necessary to achieve domain objectives | ISO/CEN 19439 |
| | | enterprise model | a representation of what an enterprise intends to accomplish, how it operates, and possibly how it is organized, which is used to improve the effectiveness and efficiency of the enterprise. a representation of what an enterprise intends to accomplish and how it operates abstraction of an enterprise domain that represents enterprise entities, their interrelationships, their decomposition and detailing to the extent necessary to convey what it intends to accomplish and how it operates | ISO 14258 ISO 15531-1 ISO 15704 ISO/CEN 19439/40 |
| | | enterprise model phase | life cycle phase of an enterprise model. | ISO/CEN 19439/40 |
| | | enterprise model view | selective perception or representation of an enterprise model that emphasizes some particular aspect and disregards others. [Adapted from ENV 40003:1990] | ISO/CEN 19439/40 |
| | | model view | | |
| | | enterprise modeling | the process of developing an enterprise model. | ISO 15531-1 |
| | | enterprise object | the act of developing an enterprise model piece of information in the enterprise domain that describes a generalized or a real or an abstract entity, which can be conceptualized as being a whole. | ISO/CEN 19439 ISO/CEN 19439 |
| | | enterprise operation <life cycle phase> | the execution of business processes to achieve enterprise objectives. | ISO/CEN 19439 |
| | | Enterprise Activity <enterprise modeling construct> | construct that represents a certain part of the lowest level of enterprise functionality required by user objectives and identifies the inputs needed for its execution and the outputs created as a result | ISO/CEN 19440 |
| | | Enterprise Object <enterprise modeling construct> | construct that represents a piece of information in the enterprise that describes a generalized or a real or an abstract entity, which can be conceptualized as being a whole | ISO/CEN 19440 |
| | | Enterprise Object View <enterprise modeling construct> | construct that represents a collection of attributes of an Enterprise Object for some particular purpose | ISO/CEN 19440 |
| | | object View | | |
| 96. | modeling | enterprise domain environment | the uncontrollable part of a system, which is widened to the extent that a decision-making procedure cannot be conceived for the control of such a system. part of the universe of discourse that does not belong to the system itself surroundings external to the domain which influence its development and behavior, and which is not controllable by the enterprise itself surroundings external to the enterprise that influence its development and behavior, and that are not controllable by the enterprise itself the part of the universe of discourse that does not belong to the system itself | ISO 14258 ISO 15531-42/43 ISO/CEN 19439 <i>Proposed by (nl)</i> <i>Proposed by (dns)</i> |
| 97. | modeling | enterprise entity attribute | a piece of information stating a property of an enterprise entity. a piece of information stating a property of an entity a data element, having a defined meaning, together with a statement of the set of possible values it may take. | ISO 15531-31/32 ISO 15704 ISO/CEN 19439/40 ISO 9506-1/2 |
| 98. | modeling | enterprise integration | ensure the interaction between all enterprise entities that is necessary to achieve a given pur- | ISO/CEN 19440 |

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| | | <i>(copied from integrate)</i> | pose in a given constrained environment enables the interaction between all enterprise entities that is necessary to achieve a given purpose in a given constrained environment | Proposed by (kk) |
| 99. | <i>process</i> | enterprise mission <i>(copied from mission)</i> | that activity in which an enterprise engages to fulfill the customer product or service function for which it was established; characterization of the business in which an enterprise describes the customer product or service function that it intends to fulfill | ISO/CEN 19439 |
| 100. | <i>modeling</i> | enterprise organization <i>(copied from organization)</i> | the structure of an enterprise and the distribution of responsibilities and authorities in the enterprise | ISO 15704 |
| 101. | <i>modeling</i> | enterprise resource <i>(copied from resource)</i> | something that may be described in terms of a behavior, a capability, or a performance measure that is pertinent to the process any device, tool and means, excepted raw material and final product components, at the disposal of the enterprise to produce goods or services an enterprise entity that provides some or all of the capabilities required by the execution of an enterprise activity and/or business process enterprise entity that provides some or all of the capabilities required to execute an enterprise activity device, communications network, equipment, human or material used in a process enterprise entity that provides some or all of the capabilities required by the execution of an enterprise activity and/or business process (in the context of this standard, a collection of personnel, equipment, and/or material) | ISO 10304-49 ISO 15531-1/32/43 ISO 18629-1/42/43/44 ISO 15704 ISO/CEN 19439/40 ISO 15745-1 IEC/ISO 62264-1 |
| 102. | <i>general</i> | <i>entity</i> | <i>something having real or distinct existence</i> <i>that which is perceived or known or inferred to have its own physical-existence</i> <i>a thing with distinct existence, as opposed to a quality or relation</i> <i>1) a fundamental thing of relevance to the user, about which information is kept. ISO/IEC 20968:2002, 2) an object (i.e., thing, event or concept) that occurs in a model (i.e., transfer). ISO/IEC 15474-1:2002 3) object that is to be characterized by measuring its attributes. ISO/IEC 25000:2005, 4) the representation of a set of real or abstract things that are recognized as the same type because they share the same characteristics and can participate in the same relationships. IEEE 1320.2-1998 (R2004), 5) a fundamental thing of relevance to the user, about which a collection of facts is kept. ISO/IEC 20926:2003 6) object to be modeled. ISO/IEC 15476-4:2005. 7) in computer programming, any item that can be named or <u>de-noted</u> in a program.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>COED</i> <i>ISO/IEC 24765</i> |
| | | entity <domain> | any concrete or abstract thing of interest [ISO/IEC 10746-2] any concrete or abstract thing in the domain under consideration | ISO 15745-1 ISO 16100-2 ISO/CEN 19439/40 |
| | | entity <class> entity <service implementation> service entity | a class of information defined by common properties (ISO 10303-11) an implementation (of a service interface) | ISO 15531-1/42/43 ISO 20242-2/3 WD |

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| 103. | modeling | entity model (copied from object) | model of an entity [ISO/IEC 10746-2] | ISO 16100-2 |
| 104. | modeling | environment | <i>external conditions or surrounding the totality of surrounding conditions</i> 1) anything affecting a subject system or affected by a subject system through interactions with it, or anything sharing an interpretation of interactions with a subject system. <i>IEEE 1175.1-2002</i> , 2) the configuration(s) of hardware and software in which the software operates. <i>ISO 9127:1988</i> , 3) the circumstances, objects, and conditions that surround a system to be built. <i>IEEE 1362-1998</i> , 4) the circumstances, objects, and conditions that will influence the completed system. <i>IEEE 1233, 1998 Edition (R2002)</i> , 5) a concept space. <i>IEEE 1320.2-1998 (R2004)</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | environment <enterprise domain> enterprise domain environment | the uncontrollable part of a system, which is widened to the extent that a decision-making procedure cannot be conceived for the control of such a system. part of the universe of discourse that does not belong to the system itself surroundings external to the domain which influence its development and behavior, and which is not controllable by the enterprise itself surroundings external to the enterprise that influence its development and behavior, and that are not controllable by the enterprise itself the part of the universe of discourse that does not belong to the system itself | ISO 14258 ISO 15531-42/43 ISO/CEN 19439 Proposed by (nl) Proposed by (dns) |
| | | environment (of a system) system environment | context which determines the setting and circumstances of developmental, technological, business, operational, organizational, political, regulatory, social, and other critical influences upon a system. | ISO/IEC WD 42010 |
| 105. | modeling | equipment | <i>not defined; Thesaurus: apparatus, gear, tools tools, machines, clothes, etc that you need to do a particular job whatever constitutes an outfit for some special purpose or service an instrumentality needed for an undertaking or to perform a service the items needed for a particular purpose</i> | <i>Collins Dictionary</i> <i>Langenscheidt</i> <i>Webster</i> <i>WordNet 2.1</i> <i>OCED</i> |
| | | entity <material processing> | entity that is stand alone, or interfaces to an automation system, and that performs material processing, material, transport, or material storage functions | ISO 15745-1 |
| | | equipment class | means to describe a grouping of equipment with similar characteristics for purposes of scheduling and planning. | IEC/ISO 62264-1 |
| | | equipment profile | representation of the integration aspects of an item of equipment | ISO 15745-1 |
| 106. | modeling | event | <i>anything that takes place, esp. something important: an incident something that happens at a given place and time</i> 1) occurrence of a particular set of circumstances. <i>ISO/IEC 16085:2006</i> , 2) something that happens, an occurrence, an outcome. <i>A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition</i> . 3) an external or internal stimulus used for synchronization purposes. | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | event management | the management of event conditions, event actions, event enrolments, and event condition | ISO 9506-1/2 |

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| | | event occurrence | lists. | |
| | | Event <enterprise modeling construct> | fact of an existence of a state at some point in time (ISO 10303-41ed2) | ISO 15531-42 |
| | | | construct that represents a solicited or unsolicited fact indicating a state change in the enterprise or its environment | ISO/CEN 19440 |
| 107. | software | executable test case | implementation of an abstract test case that is platform-dependent and is associated with parameter values and a specific test method | ISO 16100-4 |
| | | executable test suite | set of executable test cases | ISO 16100-4 |
| 108. | software | execution Manager | a software tool that controls the sequence of execution of internal processes of MAPLE and the external Manufacturing Application Programs and Manufacturing Software Tools. | ISO 13281 |
| | | | software that controls the sequence of execution of internal processes of MAPLE and the external Manufacturing Software Programs | ISO 13281-2 |
| 109. | ontology | extension | something that can be extended or that extends another object | Collins Dictionary |
| | | extension <PSL> | act of extending in scope, making more widely available | WordNet 2.1 |
| | | PSL-Core extension | augmentation of PSL-Core containing additional axioms [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 110. | process | factors of production | that which is required to transform, transport, store, and verify raw materials, parts, (sub-) assemblies, and end products. | ISO 14258 |
| 111. | process | falsification testing | test method developed to find errors in the implementation | ISO 16100-4 |
| 112. | software | file | <i>documents or information about a specific subject, person, etc.</i> <i>a set of related records</i> <i>a collection of (usu. related) data stored under one name (nl).</i> <i>1) for data functions, a logically related group of data, not the physical implementation of those groups of data. ISO/IEC 20926:2003, 2) a named set of records stored or processed as a unit. ISO/IEC 2382-1:1993, 3) a set of related records treated as a unit.</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | | a collection of data or programs stored under a single identifying name (JJM) | proposed by (jjm) |
| | | | an unambiguously named collection of information having a common set of attributes. | ISO 9506-1/2 |
| | | file operation | the transfer of files between open systems, the inspection, modification or replacement of part of a file's content, or the management of a file and its attributes. | ISO 9506-1/2 |
| | | filestore | an organized collection of files, including their attributes and names, residing at a particular open system. | ISO 9506-1/2 |
| 113. | process | finished good waivers | approvals for deviation from normal product specifications. | IEC/ISO 62264-1 |
| 114. | process | finished goods | final materials on which all processing and production is completed | IEC/ISO 62264-1 |
| 115. | process | flow | <i>To move or be conveyed as in a stream</i> <i>1) any uninterrupted stream or discharge, 2) something that resembles a flowing stream in moving continuously</i> <i>an abstraction of a sequence of interactions, resulting in conveyance of information from a producer object to a consumer object. ISO/IEC 10746-3:1996</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | flow <object> | motion of a set of physical or informational objects in space and time. | ISO 15531-1/42/43 |

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| | | object flow flow control <work> work flow control | a specific production control system that is based primarily on setting production rates and feeding work into production to meet these planned rates, then monitoring and controlling production. | ISO 15531-1/42/43 |
| | | flow model <work> work flow model | a representation or description of manufacturing related flows describing only the aspects to be relevant to its purpose. | ISO 15531-1/43 |
| 116. | modeling | framework | <i>a structural plane or basis for a project</i> <i>1) a hypothetical description of a complex entity or process, 2) a structure supporting or containing something</i> <i>1) a reusable design (models and/or code) that can be refined (specialized) and extended to provide some portion of the overall functionality of many applications. IEEE 1320.2-1998 (R2004), 2) a partially completed software subsystem that can be extended by appropriately instantiating some specific plug-ins.</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | | a structural diagram that relates the component parts of a conceptual entity to each other structure expressed in diagrams, text and formal rules that relates the components of a conceptual entity to each other | ISO 15704 ISO/CEN 19439 |
| 117. | process | function | <i>1) to operate or perform as specified, 2) perform the action or role</i> <i>1) what something is used for, 2) a mathematical relation such that one thing is dependent on another, 3) the actions and activities assigned to or required or expected of a person or group</i> <i>1) an elementary unit of requirements and specifications defined and used for measurement purposes. ISO/IEC 24570:2005, 2) a task, action, or activity that must be accomplished to achieve a desired outcome. IEEE 1233, 1998 Edition (R2002), 3) the features or capabilities of an application as seen by the user. ISO/IEC 20926:2003, 4) a transformation of inputs to outputs, by means of some mechanisms, and subject to certain controls, that is identified by a function name and modeled by a box. IEEE 1320.1-1998 (R2004), 5) an aspect of the intended behavior of the system. ISO/IEC 15026:1998, 6) a single valued mapping. IEEE 1320.2-1998 (R2004), 7) a software module that performs a specific action, is invoked by the appearance of its name in an expression, may receive input values, and returns a single value. 8) a defined objective or characteristic action of a system or component.</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | function <system> system function function Object | a grouping of several activities performed to realise some manufacturing objectives what a system (or a process) is expected to do | ISO TR 10314 proposed by (jjm) |
| | | function view | a part of a system (process) responsible for a specified capability, described as template (class) as well as entity (instance) (rp) enterprise model view that enables the representation and modification of the processes of the enterprise, their functionality, behaviors, inputs and outputs | ISO 20242-3/4/5 W ISO/CEN 19439/40 |
| 118. | modeling | functional (adj.) | <i>involving or containing a function or functions</i> <i>designed for or capable of a particular function or use</i> | Collins Dictionary WordNet 2.1 |
| | | functional category | grouping of entities for expression of a common purpose or capability | ISO/CEN 19440 |

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| | | Functional Operation <enterprise modeling> | basic unit of work and lowest level of granularity in the function view. | ISO/CEN 19440 |
| | | Functional Entity <enterprise modeling construct> | basic unit of activity and lowest level of granularity in the function view. construct that is a specialization of the Resource construct, which represents an aggregation of Resources and Operational Roles able to perform, completely on its own, a (class of) functional operation(s) required by an Enterprise Activity and to communicate with the related control system | Proposed by (dns) ISO/CEN 19440 |
| 119. | <i>modeling</i> | <i>functionality (noun)</i> | <i>capable of serving a purpose well</i> <i>the capabilities of the various computational, user interface, input, output, data management, and other features provided by a product. IEEE 1362-1998</i> | <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | functionality <process> | qualities of a process that enable it to achieve the purpose for which the process exists | ISO/CEN 19439 |
| 120. | G-J <i>general</i> | <i>generalization (noun)</i> | <i>a principle, theory, etc. with general application</i> <i>1) an idea or conclusion having general application, 2) the process of formulating general concepts by abstracting common properties from instances</i> <i>a general notion or proposition obtained by inference from particular cases</i> <i>a taxonomy in which instances of both entities represent the same real or abstract thing. IEEE 1320.2-1998 (R2004)</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | <i>generalize (verb)</i> | <i>to form (general principles or conclusions) from (detailed facts, experience, etc.(: infer draw from specific cases to more general cases</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | generalization <relationship> | taxonomic relationship between a more general element and a more specific element [ISO/IEC 19501-1] | ISO 15745-1 |
| | | generalization of concepts | specific concept modified for a more general extent, use or purpose, or: act of removing or modifying detail from a specific concept to produce a generalization thereof | ISO/CEN 19439/40 |
| 121. | <i>general</i> | <i>generic (adj.)</i> | <i>applicable or referring to a whole class or group</i> <i>applicable to an entire class or group</i> <i>referring to a class or group</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>COED</i> |
| | | generic <modeling> | property of being a generalizing from a number of distinguishable entities based on their shared characteristics. | ISO/CEN 19439 |
| | | generic level <enterprise modeling> | collection of generic modeling language constructs for expressing descriptions that can be used to generate models at the partial and particular levels. | ISO/CEN 19439/40 |
| | | generic resource | structure belonging to resource hierarchy and encompassing the common properties of several resources. | ISO 15531-31/32 |
| | | generic <entity> | placeholder in a viewpoint definition which must be instantiated before its use in an architectural description. | ISO/IEC WD 42010 |
| | | generic entity | <i>an entity whose instances are classified into one or more subtypes or subclassifications (category entities). IEEE 1320.2-1998 (R2004)</i> | <i>ISO/IEC 24765</i> |
| 122. | <i>general</i> | genericity | the extent to which a concept is generic | ISO 15704 ISO/CEN 19439 |
| 123. | <i>ontology</i> | <i>grammar</i> | <i>a systematic description of the grammatical facts of a language</i> | <i>Collins Dictionary</i> |

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| | | | <i>the branch of linguistics that deals with syntax and morphology (and sometimes also deals with semantics or morphology)</i> <i>the whole system and structure of a language or of languages in general, usually taken as consisting of syntax and morphology</i> | WordNet 2.1 COED |
| | | grammar <PSL> PSL grammar | specification of how logical symbols and lexical terms can be combined to make well-formed formulae [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 124. | <i>modeling</i> | human profile | representation of the integration aspects of a person | ISO 15745-1 |
| 125. | <i>process</i> | hybrid system controller | hybrid hardware/software systems that are used for controlling machines | ISO 16100-1 |
| 126. | <i>modeling</i> | <i>Implementation</i> | <i>not defined; Thesaurus: carrying out, execution, fulfillment, performing, realization</i> <i>the act implementing (providing a practical means for accomplishing something</i> <i>1) a definition that provides the information needed to create an object and allow the object to participate in providing an appropriate set of services. ISO/IEC 19500-2:2003, 2) the system development phase at the end of which the hardware, software and procedures of the system considered become operational. ISO/IEC 2382-20:1990, 3) a process of instantiation whose validity can be subject to test. ISO/IEC 10746-3:1996, 4) the process of translating a design into hardware components, software components, or both. 5) the result of the process in (1). 6) the installation and customization of packaged software. 7) construction.</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | implementation description phase <model life cycle phase> | enterprise model phase that describes the final set of processes, resources and rules implemented to achieve the desired operational performance for execution of business processes and enterprise activities specified in the design specification phase. | ISO/CEN 19439/40 |
| | | implementation-dependent requirement | a requirement which depends on the specific aspects of the implementation of the time-critical communication architecture being used | ISO/TR 13283 |
| 127. | <i>ontology</i> | <i>individual (noun)</i> | <i>a single person , esp. when distinct from others</i> <i>a human being</i> <i>1) a single person, animal or thing; especially a human being, 2) anything that cannot be divided or separated into parts</i> | Collins Dictionary WordNet 2.1 Webster |
| | | <i>individual (adj.)</i> | <i>separate or distinct, esp. from others of its kind; particular</i> <i>separate and distinct from others of the same kind</i> | Collins Dictionary WordNet 2.1 |
| | | individual <element> individual element | element of an interpretation domain, in logic, considered as not divisible without loss of identity | ISO 18629-11 |
| 128. | <i>process</i> | industrial process | a process with the purpose of providing direct contribution to the production of goods and associated services. | ISO 15531-1 |
| 129. | <i>general</i> | <i>Information</i> | <i>knowledge acquired through experience or study</i> <i>1) a collection of facts from which conclusions may be drawn, 2) knowledge acquired through study, or experience or instruction</i> <i>1) facts or knowledge provided or learned 2) what is conveyed or represented by a particular sequence of symbols, impulses</i> <i>1) knowledge that is exchangeable amongst users about things, facts, concepts, and so on, in</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |

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| | | | <p><i>a universe of discourse. ISO/IEC 10746-2:1996, 2) In information processing, knowledge concerning objects, such as facts, events, things, processes, or ideas, including concepts, that within a certain context has a particular meaning. ISO/IEC 2382-1:1993</i></p> <p>facts, concepts, or instructions to meet a specified requirement [ISO 10303-1]</p> <p>any kind of knowledge, that is exchangeable amongst users, about things, facts, concepts and so on, in a universe of discourse [ISO/IEC 10746-2]</p> <p>the combination of data and the meaning that it conveys</p> <p>stored, provided or transmitted knowledge on fact, concepts, entities or instructions</p> <p>the meaning conveyed by a collection of data, symbols, or pictures</p> | <p>ISO 15531-1/32/43</p> <p>ISO 18629-11/42</p> <p>ISO 15745-1</p> <p>ISO 9506-1/2</p> <p>Proposed by (jjm)</p> |
| | | information model | a formal model of a bounded set of facts, concepts or instructions to meet a specified requirement (ISO 10303-1) | ISO 15531-32 |
| | | information technology component | component that is required to collect, process, distribute, store and verify data for enterprise activities in the enterprise | ISO/CEN 19439 |
| | | information view | component that is required to undertake one or several of the collection, processing, distribution, storage or verification of data for Enterprise Activities in the enterprise | ISO/CEN 19440 |
| | | | enterprise model view that enables the representation and modification of the enterprise information as identified in the function view | ISO/CEN 19439/40 |
| 130. | process | in-process waiver requests | requests for waivers on normal production procedures due to deviations in materials, equipment, or quality metrics, where normal product specifications are maintained. | IEC/ISO 62264-1 |
| 131. | process | <i>install</i> | <i>to place (equipment) in position and connect and adjust for use</i> | <i>Collins Dictionary</i> |
| | | <i>installation</i> | <i>set up for use</i> | <i>WordNet 2.1</i> |
| | | | <i>the act of installing something</i> | <i>WordNet 2.1</i> |
| | | | the initial process of enabling a resource to perform its requested activity. | ISO 15531-1 |
| 132. | modeling | <i>instance</i> | <p><i>a case or particular example; occurrence</i></p> <p><i>1) an occurrence of something, 2) an item of information that is representative of a type; 1) an example or single occurrence of something. 2) a particular case.</i></p> <p><i>1) discrete, bounded thing with an intrinsic, immutable, and unique identity. IEEE 1320.2-1998 (R2004), 2) an individual occurrence of a type. ISO/IEC 15474-1:2002, 3) the mapping of an activity that processes all of its input information and generates all of its output information. IEEE 1074-2006</i></p> | <p><i>Collins Dictionary</i></p> <p><i>WordNet 2.1</i></p> <p><i>COED</i></p> <p><i>ISO/IEC 24765</i></p> |
| | | instance <UML> | entity that has unique identity, a set of operations that can be applied to it, and state that stores the effects of the operations [UML] | ISO 15745-1 |
| 133. | modeling | <i>instantiation</i> | <i>a representation of an idea in the form of an instance of it,</i> | <i>WordNet 2.1</i> |
| | | instantiation <enterprise modeling> | creation of instances of modeling language constructs or partial models, and the possible assignment of values to some or all attributes. | ISO/CEN 19439/40 |
| | | construct instantiation | | |
| 134. | modeling | <i>integrate</i> | <p><i>to make or be made into a whole</i></p> <p><i>make into a whole or make part of a whole</i></p> | <p><i>Collins Dictionary</i></p> <p><i>WordNet 2.1</i></p> |

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| | | integrate <enterprise> enterprise integration | <p>1) to combine software components, hardware components, or both into an overall system. 2) to pull in the changes from one child branch into its parent.</p> <hr/> <p>ensure the interaction between all enterprise entities that is necessary to achieve a given purpose in a given constrained environment</p> <p>enables the interaction between all enterprise entities that is necessary to achieve a given purpose in a given constrained environment</p> | <p>ISO/IEC 24765</p> <hr/> <p>ISO/CEN 19440</p> <p>Proposed by (kk)</p> |
| 135. | modeling | integrated resource | <p><i>interrelated, interconnected, interlocked, or meshed components blended and unified into a functioning or unified whole. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) --Third Edition.</i></p> <hr/> <p>a part of this International Standard that defines a group of resource constructs used as the basis for product data (ISO 10303-1)</p> | <p>ISO/IEC 24765</p> <hr/> <p>ISO 15531-32</p> |
| 136. | modeling | integrity | <p><i>not relevant; Thesaurus: coherence, cohesion, completeness, soundness unity, wholeness; an undivided or unbroken completeness or totality with nothing wanting the degree to which a system or component prevents unauthorized access to, or modification of, computer programs or data.</i></p> <hr/> <p>property that data has not been changed, destroyed, or lost in an unauthorized or accidental manner [W3C]”</p> | <p>Collins Dictionary WordNet 2.1 ISO/IEC 24765</p> <hr/> <p>ISO 15745-1 (Amd1)</p> |
| 137. | modeling | integrity rule | <p>statement in the requirements definition phase concerning restrictions on information to ensure conformity to real-world reality.</p> <p>statement in the requirements definition phase concerning restrictions on information to ensure conformity to real-world</p> | <p>ISO/CEN 19440</p> <p>proposed by (kk)</p> |
| 138. | modeling | interaction | any causal relation induced by message transfer | ISO/TR 13283 |
| 139. | communication | interface | <p><i>a common point or boundary between two things</i></p> <p>1) (computer science) a program that controls a display for the user and that allows the user to interact with the system; 2) (computer Science) computer circuit consisting of the hardware and associated circuitry the links one device with another</p> <p>1) a point where two things meet and interact. 2) a device or program enabling a user to communicate with a computer, or for connecting two items of hardware or software</p> <p>1) a shared boundary between two functional units, defined by various characteristics pertaining to the functions, physical signal exchanges, and other characteristics. ISO/IEC 2382-1:1993, 2) the declaration of the meaning and the signature for a property or constraint. IEEE 1320.2-1998 (R2004), 3) a hardware or software component that connects two or more other components for the purpose of passing information from one to the other. 4) to connect two or more components for the purpose of passing information from one to the other. 5) to serve as a connecting or connected component as in (3). 6) a shared boundary across which information is passed., 7) a task's external specification.</p> | <p>Collins Dictionary WordNet 2.1</p> <p>OCED</p> <p>ISO/IEC 24765</p> |
| | | interface <UML> interface definition | <p>named set of operations that characterize the behavior of an element [UML]</p> <p>abstraction of the behavior of an object that consists of a subset of the interactions of that</p> | <p>ISO 15745-1</p> <p>ISO 16100-2/3/4</p> |

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| | | interface <device capability description> interface driver | object together with a set of constraints on when they may occur [ISO/IEC 10746-2] keyword identifying a class for the description of device functions | ISO 20242-1 |
| | | | program handling the data transfer via a peripheral interface | ISO 20242-1 |
| 140. | <i>modeling</i> | <i>interpretation</i> | <i>the act or process of interpreting or explaining</i> <i>1) an explanation that results from interpreting something, 2) an explanation of something that results from interpreting something</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | | the process of adapting a resource constructs to satisfy a requirement of an application protocol. | ISO 10303-1 (nl) |
| | | interpretation <PSL theory> PSL theory interpretation interpretation <Resource adaptation> resource adaptation | universe of discourse and assignment of truth values (TRUE or FALSE) to all sentences in a theory the process of adapting a resource construct from the integrated resources to satisfy a requirement of an application protocol. This may involve the addition of restrictions on attributes, the addition of constraints, the addition of relationships among resource constructs and application constructs, or all of the above (ISO 10303-1) | ISO 18629-11/13 ISO 15531-32 |
| 141. | <i>process</i> | interval of time | length of a period of time, measured using a given unit of time | ISO 15531-42 ISO 18629-43 |
| 142. | <i>communication</i> | <i>invalid (adj.)</i> invalid PDU | <i>not valid</i> <i>no longer valid</i> a PDU that does not comply with the requirements of this part of ISO 9506 with respect to structure, meaning, or both. | <i>Collins Dictionary</i> <i>WordNet 2.1</i> ISO 9506-2 |
| 143. | <i>process</i> | inventory control | the act or the function of checking and maintaining stock items at a desired level. | ISO 15531-1 |
| 144. | <i>process</i> | job operation <i>(copied from operation)</i> | the completion of an action or work element to realise a specific result job or task consisting of one or more work elements, usually done essentially in one location [from APICS dictionary] | ISO 15531-31 ISO 15531-43 |
| 145. | <i>software</i> | <i>journal</i> journal <event> | <i>a book in which a daily record of happenings, etc., is kept</i> <i>1) a daily written record of experience and observations 2) a ledger in which transactions have been recorded as they occurred</i> a set of recorded, time-tagged event transitions, variable data, and/or comments that may be logically ordered during retrieval. | <i>Collins Dictionary</i> <i>WordNet 2.1</i> ISO 9506-1/2 |
| 146. | <i>process</i> | junction process | carrying process that enables the grouping of several flows in one or more other flows | ISO 15531-43 |
| 147. | <i>process</i> | just in time (JIT) | the fact, or the related production organization, of supplying work desks in due time with the strictly needed quantity of component and raw material. | ISO 15531-1 |
| 148. | K-M <i>ontology</i> | <i>language</i> | <i>a system for the expression of thoughts, feelings, etc., by the use of spoken sounds or conventional symbols</i> <i>1) a systematic means of communicating by the use of sounds or conventional symbols; 2) a system of words used in a particular discipline</i> <i>the method of human communication, either spoken or written, consisting of the use of words</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> COED |

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| | | | <i>in a structured and conventional way. a system of symbols and rules for writing programs or algorithms</i> <i>1) a systematic means of communicating ideas by the use of conventionalized signs, sounds, gestures, or marks and rules for the formation of admissible expressions. 2) a means of communication, with syntax and semantics, consisting of a set of representations, conventions, and associated rules used to convey information.</i> | ISO/IEC 24765 |
| | | | combination of a lexicon and a grammar [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 149. | <i>modeling</i> | language construct occurrence <i>(copied from occurrence)</i> | single, actual realization of a modeling language construct that represents a particular entity in the real world at the time the model is processed | ISO/CEN 19440 |
| 150. | <i>ontology</i> | <i>lexicon</i> | <i>a list of terms relating to a particular subject</i> <i>1) a languages user's knowledge of words; 2) a reference book containing a alphabetical list of words with information about them</i> | Collins Dictionary WordNet 2.1 |
| | | lexicon <PSL> PSL lexicon | set of symbols and terms [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 151. | <i>modeling</i> | life cycle | <i>1) evolution of a system, product, service, project or other human-made entity from conception through retirement. ISO/IEC 12207:2008, ISO/IEC 15288:2008 2) the system or product evolution initiated by a perceived stakeholder need through the disposal of the products. IEEE 1220-2005</i> the finite set of generic phases and steps a system may go through over its entire life history set of distinguishable phases and steps within phases that an entity goes through from its creation until it ceases to exist | ISO/IEC 24765 ISO 15704 ISO/CEN 19439/40 |
| | | life cycle model | <i>framework of processes and activities concerned with the life cycle that may be organized into stages, which also acts as a common reference for communication and understanding. ISO/IEC 12207:2008, ISO/IEC 15288:2008</i> | ISO/IEC 24765 |
| | | life cycle phase | a framework containing the processes, activities, and tasks involved in the development, operation, and maintenance of a software product, which spans the life of the system from the definition of its requirements to the termination of its use model containing the processes, activities, and tasks involved in the development, operation, and maintenance of a software product, which spans the life of the system from the definition of its requirements to the termination of its use stage of development in the life cycle of an entity. | ISO/IEC 25061 (IEEE 1471) Proposed by (dns) |
| 152. | <i>modeling</i> | life history | the actual sequence of steps a system has gone through during its lifetime | ISO/CEN 19439/40 ISO 15704 |
| 153. | <i>ontology</i> | linear ordering | set of elements with a binary relation between any two elements that is transitive, ir-reflexive and anti-symmetric | ISO 18629-11 |
| 154. | <i>communication</i> | local matter | a decision made by a system concerning its behavior in the Manufacturing Message Specification that is not subject to the requirements of ISO 9506. | ISO 9506-1/2 |
| 155. | <i>software</i> | logical-to-physical mapping | relationship between the data sources and the physical data stored in the Manufacturing Data Dictionary | ISO 13281-2 |

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| 156. | <i>process</i> | main plant | the primary plant of a company in the manufacturing process. | ISO 15531-1 |
| 157. | <i>process</i> | management | 1) the technique, practice, or science of managing or controlling; 2) the skilful or resourceful use of materials, time, etc. 1) the act of managing something ; 2) those in charge of running a business | Collins Dictionary WordNet 2.1 |
| | | management <manufacturing> manufacturing management | the function or act of directing or regulating the flows of goods through the entire production cycle from requisitioning of raw materials to the delivery of the finished product, including the impact on resources management. | ISO 15531-1/43 |
| 158. | <i>process</i> | <i>manufacturing</i> | <i>put together out of components or parts</i> | WordNet 2.1 |
| | | manufacturing <APICS> | the function or act of converting or transforming material from raw material or semi-finished state to a state of further completion. [adapted from APICS dictionary] | ISO 15531-1/43 ISO 18629-11/14/43/44 |
| | | manufacturing Database | data repository, possibly distributed, containing product, process, facility and management oriented data | ISO 13281-2 |
| | | manufacturing domain data <UML class> | UML class representing information about manufacturing resources, manufacturing activities, or items exchanged among manufacturing resources within a particular manufacturing domain | ISO 16100-5 |
| | | manufacturing domain data template | XML schema representing a manufacturing domain data | ISO 16100-5 |
| | | manufacturing domain model | a particular view of a manufacturing domain, consisting of manufacturing domain data and relationships among them, corresponding to the domain's applications | ISO 16100-5 |
| | | manufacturing domain model template | XML schema representing a manufacturing domain model | ISO 16100-5 |
| | | manufacturing management | the function or act of directing or regulating the flows of goods through the entire production cycle from requisitioning of raw materials to the delivery of the finished product, including the impact on resources management. | ISO 15531-1/43 |
| | | manufacturing operations and control domain MO&C | domain that includes all the activities in Level 3 and information flows to and from levels 0, 1, and 2 across the boundary to Level 4. | IEC/ISO 62264-1 |
| | | manufacturing planning | the function of setting appropriate levels or limits to the future manufacturing operations according to sales forecast, economic constraints and resources requirements and availability. | ISO 15531-1 |
| 159. | <i>software</i> | manufacturing Application Program | the structured set of activities or operations performed upon material to convert it from the raw material or a semi-finished state to a state of further completion. | ISO 15531-1/43 ISO 18629-11/14/42/43/44 |
| | | manufacturing process | component that is required to control, transform, transport, store and verify raw materials, parts, (sub-)assemblies and end products. | ISO/CEN 19439 |
| | | manufacturing technology component | component that is required to undertake one or several of the control, transform, transport, storage or verification of raw materials, parts, (sub-)assemblies and end products | ISO/CEN 19440 |
| | | manufacturing system | system coordinated by a particular information model to support the execution and control of manufacturing processes involving the flow of information, material, and energy in a manufacturing plant. | ISO 16100-1 |
| 159. | <i>software</i> | manufacturing Application Program | manufacturing software which has command and information connections with MAPLE (e.g. CAD systems), but is not registered in the Manufacturing Software Tools Dictionary. | ISO 13281 |
| | | manufacturing Database | a data repository, possibly distributed, containing product, process, facility and management | ISO 13281 |

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| | | manufacturing Data Dictionary manufacturing Data Manager | oriented data. a collection of data schema (meta-data) describing data in the Manufacturing Database. a Manufacturing Software Tool enabling access to the Manufacturing Databases. | ISO 13281 ISO 13281 |
| 160. | <i>modeling</i> | Manufacturing area (copied from area) | manufacturing area | IEC/ISO 62264-1 |
| 161. | <i>modeling</i> | manufacturing facilities (copied from production facilities) | the physical plant and equipment | ISO 15531-1 |
| 162. | <i>process</i> | manufacturing management (copied from management) | the function or act of directing or regulating the flows of goods through the entire production cycle from requisitioning of raw materials to the delivery of the finished product, including the impact on resources management. | ISO 15531-1/43 |
| 163. | <i>communication</i> | manufacturing message protocol machine (MMPM) | an abstract machine that carries out the procedures specified in this part of ISO 9506. | ISO 9506-1/2 |
| 164. | <i>modeling</i> | manufacturing resource cluster (copied from cluster) | set of manufacturing resource units | ISO 16100-3/4 |
| 165. | <i>software</i> | manufacturing Software | type of software resource within an automation system that provides value to a manufacturing application (e.g. CAD/PDM) by enabling the flow of control and information among the automation system components involved in the manufacturing processes, between these components and other enterprise resources, and between enterprises in a supply chain or demand chain. type of software resource that provides value to a manufacturing application enabling control and information transfer among the system components and other enterprise resources | ISO 16100-1 Proposed by (kk) |
| | | manufacturing software capability | set of manufacturing software functions and services against a set of criteria for evaluating performance under a given set of manufacturing conditions. | ISO 16100-1 |
| | | manufacturing software capability profile | concise representation of a manufacturing software capability to meet a requirement of a manufacturing application | ISO 16100-1 |
| | | manufacturing software component | class of manufacturing software resource intended to support the execution of a particular manufacturing task. | ISO 16100-1 |
| | | manufacturing software tool | a software program registered in the Manufacturing Software Tool Dictionary, which provides simple or complex, manufacturing related functionality for the support of Manufacturing Application Programs. (e.g. simulators, editors). | ISO 13281 |
| | | manufacturing software tool dictionary | a collection of descriptions of the capabilities of Manufacturing Software Tools and Manufacturing Application Programs. | ISO 13281 |
| | | manufacturing software unit | class of software resource, consisting of one or more manufacturing software components, performing a definite function or role within a manufacturing activity while supporting a common information exchange mechanism with other units. | ISO 16100-1/4 |
| 166. | <i>software</i> | MAPLE | a Manufacturing Automation Programming Environment, a common vendor independent neutral support facility for the programming of multiple manufacturing devices and controls. | ISO 13281-2 |

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| 167. | <i>software</i> | MAPLE Engine | part of the standardized core of MAPLE, a software tool for receiving and handling requests to MAPLE and the initialization of the entire environment. | ISO 13281-2 |
| 168. | <i>process</i> | <i>master plan</i> | <i>a long-term outline of a project or government function</i> | <i>WordNet 2.1</i> |
| | | master plan <engineering> | the documentation of the major engineering and operations planning effort carried out prior to any large enterprise integration or other systems engineering project | ISO 15704 |
| | | master production schedule | a representation of what a company plans to produce expressed in specific configurations, quantities and dates. | ISO 15531-1 ISO 15531-1 |
| | | master production scheduling | the function or the act, by which the master production schedule is built, reviewed and adjusted. | |
| 169. | <i>software</i> | matcher | mechanism to compare an offered capability profile with a required capability profile | ISO 16100-3/4 |
| 170. | <i>software</i> | matching level <profile> | qualitative measure of how closely a capability profile of an MSU meets the software functional requirements of a manufacturing activity | ISO 16100-3/4 |
| 171. | <i>process</i> | <i>material</i> | <i>the substance of which a thing is made or composed; component or constituent matter. 1) the tangible substance that goes into the makeup of a physical object; 2) things needed for doing or making something; 3) information (data or ideas or observations that can be re-worked into a finished form</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | | <i>the aggregate of things used by an organization in any undertaking, such as equipment, apparatus, tools, machinery, gear, material, and supplies. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition.</i> | ISO/IEC 24765 |
| | | | <u>matter used in manufacturing the product</u> | ISO 15745-1 |
| | | material class | means to describe a grouping of materials with similar characteristics for purposes of scheduling and planning. | IEC/ISO 62264-1 |
| | | material definition | definition of the properties and characteristics for a substance | IEC/ISO 62264-1 |
| | | material lot | uniquely identifiable amount of a material. | IEC/ISO 62264-1 |
| | | material profile | representation of the integration properties of the material | ISO 15745-1 |
| | | material sub lot | uniquely identifiable subset of a material lot, containing quantity and location. | IEC/ISO 62264-1 |
| 172. | <i>process</i> | <i>measure</i> | <i>the extent, quantity, amount or degree of something, as determined by measurements or calculation</i> <i>a basis for comparison; a reference point against which other things can be evaluated</i> <i>1) a means of achieving a purpose, 2) a standard unit used to express size, amount, or degree, 3) a measuring device marked with such units, 4) (a measure of) a certain amount or degree of, 5) (a measure of) an indication of the extent or quality of.</i> <i>1) variable to which a value is assigned as the result of measurement. ISO/IEC 25000:2005, 2) make a measurement. ISO/IEC 25000:2005, 3) a way to ascertain or appraise value by comparing it to a norm. IEEE 1061-1998 (R2004), 4) to apply a metric. IEEE 1061-1998 (R2004), 5) a number that assigns relative value. ISO/IEC 20926:2003, 6) to ascertain or appraise by comparing to a standard. ISO/IEC 20926:2003, 7) the number or category assigned to an attribute of an entity by making a measurement. ISO/IEC 14598-1:1999, 8) a</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>OCED</i> ISO/IEC 24765 |

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| | | | <i>quantitative assessment of the degree to which a software product or process possesses a given attribute. IEEE 982.1-1988</i> | |
| | | | result of a quantitative evaluation of a given property of any physical or mathematical object | ISO 15531-42 |
| 173. | software | media access control (MAC) | the data link layer responsible for scheduling and routing data transmission on a shared medium | ISO/TR 13283 |
| 174. | commu- nication | message | <i>communication, usually brief, from one person or group to another</i> <i>a communication (usually brief) that is written or spoken or signaled</i> <i>a communication sent from one object to another. IEEE 1320.2-1998 (R2004)</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | message <description> | specification of the conveyance of information from one instance to another, with the expectation that activity will ensue [UML] | ISO 15745-1 |
| 175. | general | method | <i>a way of proceeding or doing something, esp. a systematic or regular one</i> <i>a way of doing something, esp. a systematic way, implies an orderly logical arrangement (usually in steps)</i> <i>1) a way of doing something. 2) orderliness of thought or behavior.</i> <i>1) an implementation of an operation. ISO/IEC 19500-2:2003, 2) a statement of how property values are combined to yield a result. IEEE 1320.2-1998 (R2004)</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | method content | a set of instructions (provided through text, computer programs, tools, etc.) that is a step-by-step aid to the user | ISO 15704 ISO/CEN 19439 ISO 15531-42 |
| | | method of measure | set of rules and intermediate steps, including the definition and the use of a unit of measure to be observed to achieve the considered measure | |
| 176. | general | methodology | <i>the system of methods and principles used in a particular discipline</i> <i>the system of methods followed in a particular discipline</i> <i>a system of methods used in a particular field</i> <i>1) a system of practices, techniques, procedures, and rules used by those who work in a discipline. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) specification of the process to follow together with the work products to be used and generated, plus the consideration of the people and tools involved, during an IBD development effort. ISO/IEC 24744:2007</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | | a set of instructions (provided through text, computer programs, tools, etc.) that is a step-by-step aid to the user | ISO 15704 ISO/CEN 19439 |
| 177. | process | mission | <i>a specific task or duty assigned to a person or a group of people</i> <i>1) an operation that is assigned by a higher headquarter, 2) a assignment that has been given to a person or group</i> | Collins Dictionary WordNet 2.1 |
| | | mission <enterprise> enterprise mission | that activity in which an enterprise engages to fulfill the customer product or service function for which it was established; characterization of the business in which an enterprise describes the customer product or service function that it intends to fulfill | ISO 15704 ISO/CEN 19439 |
| 178. | modeling | MMS Predefined Object | an object that is instantiated through the use of some mechanism other than an MMS service. | ISO 9506-1/2 |

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| | | <i>(copied from predefined object)</i> | | |
| 179. | <i>commu- nication</i> | MMS semaphore <i>Copied from semaphore</i> | a conceptual lock associated with a logical or physical resource that permits access to that resource only by an owner of the lock. the control of semaphores. | ISO 9506-2 |
| 180. | <i>modeling</i> | MMS standardized object <i>(copied from standardized object)</i> | an object instantiation whose definition is provided in this part of ISO 9506 or in an MMS Companion Standard. | ISO 9506-1/2 |
| 181. | <i>modeling</i> | MMS/VMD Domain | an adjective used to describe an object whose name has a scope that is a single Domain (i.e. the name can be referenced over all application associations established with the VMD that may reference this Domain) | ISO 9506-1/2 |
| 182. | <i>commu- nication</i> | MMS-context | a specification of the service elements of MMS and semantics of communication to be used during the lifetime of an application association renamed [ISO 9506-1 - <i>MMS environment</i>] | ISO 9506-2 |
| | | MMS-environment | a specification of the service elements of MMS and semantics of communication to be used during the lifetime of an application association. | ISO 9506-1 |
| | | MMS-provider | that part of the application entity that conceptually provides the MMS service through the exchange of MMS PDUs. | ISO 9506-1/2 |
| | | MMS-user | that part of the application process that conceptually invokes the Manufacturing Message Specification. | ISO 9506-1/2 |
| 183. | <i>modeling</i> | model | <i>a representation usually on a smaller scale of a device, structure, etc.</i> <i>1) a representative form or pattern; 2) representation of something (sometimes on a smaller scale)</i> <i>a simplified mathematical description of a system or process, used to assist calculations and predictions.</i> <i>1) a representation of a real world process, device, or concept. IEEE 1233, 1998 Edition (R2002), 2) a representation of something that suppresses certain aspects of the modeled subject. IEEE 1320.2-1998 (R2004), 3) an interpretation of a theory for which all the axioms of the theory are true. IEEE 1320.2-1998 (R2004), 4) a related collection of instances of meta-objects, representing (describing or prescribing) an information system, or parts thereof, such as a software product. ISO/IEC 15474-1:2002, 5) a semantically closed abstraction of a system or a complete description of a system from a particular perspective.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>COED</i> <i>ISO/IEC 24765</i> |
| | | model representation | a representation of something else expressed in mathematics, symbols, or words representation or description of an entity or a system, describing only the aspects considered to be relevant for its purpose | ISO 14258 ISO 15531-1/32/43 |
| | | | an abstract representation of reality in any form (including mathematical, physical, symbolic, graphical, or descriptive form) to present a certain aspect of that reality for answering the questions studied | ISO 15704 |
| | | model content | abstract description of reality in any form (including mathematical, physical, symbolic, graphical, or descriptive) that presents a certain aspect of that reality combination of a set of elements and a truth assignment that satisfies all well-formed formu- | ISO/CEN 19439/40 ISO 18629-11/13/14 |

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| | | model development process | lae in a theory [ISO 18629-1] process of deriving and instantiating models at the different enterprise model phases. | ISO/CEN 19439 ISO/CEN 19439 |
| | | modeling language construct construct | textual or graphical part of a modeling language devised to represent in an orderly way the diverse information on common properties and elements of a collection of phenomena. textual or graphical part of a modeling language devised to represent, in an orderly way, the diverse information on common properties and elements of a collection of enterprise entities [adapted from EN ISO 19439] | ISO/CEN 19440 |
| 184. | <i>general</i> | model class <i>(copied from class)</i> | abstraction representing and encapsulating properties, relationships, and behavior, which distinguish a collection of similar phenomena. | ISO/CEN 19440 |
| 185. | <i>modeling</i> | model element | atomic constituent of a model [UML, ISO/IEC 19501-1] | ISO 15745-1 ISO 16100-2 |
| 186. | <i>modeling</i> | model enactment | computer processing of models to facilitate the development of more responsive and coherent enterprises, in particular the use of a model to monitor and control the execution of the business processes of the enterprise. [Adapted from Vernadat] | ISO/CEN 19439 |
| 187. | <i>modeling</i> | model particularization copied from particularization | process of specialization and instantiation by which more specific model components can be derived from more generic ones. | ISO/CEN 19439/40 |
| 188. | <i>general</i> | modeling universe of discourse <i>(copied from universe of discourse)</i> | the collection of concrete or abstract things that belong to an area of the real world, selected according to its interest for the system to be modeled and for its corresponding environment. collection of entities that ever have been, are, or always will be, in a selected portion of the real world or postulated world of interest that is being described by the models | ISO 15531-1/42/43 ISO 18629-11/13 ISO/CEN 19440 |
| 189. | <i>modeling</i> | <i>module</i> | <i>a standard self-contained unit, such as an assembly of electronic components, that can be used in combination with other units</i> | <i>Collins Dictionary</i> |
| | | module <VMD> | <i>a self-contained component (unit or item) that is used in combination with other components</i> ISO 20242-defined keyword, identifying a class for the description of virtual devices | <i>WordNet 2.1</i> ISO 20242-1 |
| 190. | <i>process</i> | monitored event | a detected change in the state of an event condition. | ISO 9506-1/2 |
| 191. | <i>software</i> | MSU interoperability | capability of a MSU to support a particular usage of an interface specification in exchanging a set of application information with another MSU | ISO 16100-3/4 |
| 192. | commu- nication | multi peer data transmission | the transmission of a PDU to one or more destinations | ISO/TR 13283 |
| | | multi peer group | a group of peer entities which are mutually willing and able to be senders or receivers of multi-peer data transmissions with other members of the group | ISO/TR 13283 |
| 193. | N-P <i>modeling</i> | <i>name</i> | <i>a word or term by which a person or thing is commonly and distinctively known</i> <i>a language unit by which a person or thing is known</i> <i>a word or phrase that designates some model construct. IEEE 1320.2-1998 (R2004)</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | name of an entity | representation of a concept by a description statement which serves to differentiate it from related concepts (ISO 1087-1 (2000)) term, which, in a given naming context, refers to an entity [ISO/IEC 10746-2]. | Proposed by (jjm) ISO 15745-1 |
| 194. | commu- nication | network management_management entity (NM-ME) | a management service entity or management agent responsible for operating management actions, e.g. state control and report, alarm report, logging, violation report, access control, | ISO/TR 13283 |

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| | | network management policy control function (NM)-PCF network management quality control function (NM)-QCF TCNM-management information base TCNM-MIB | monitor metrics, test control, scan report, scheduling, resource control, knowledge management, etc., and for operating the (NM)-protocol in order to cooperate with other peer (NM)-subsystem in the sense of system management in OSI management the function that determines the TCNM policy that is to apply to the operation of the TCCN the function that takes account of QoS requirements in selecting the entities that will participate in the network management a conceptual repository in which common knowledge of the behavior of the various QoS entities in operation will be used to influence the policy control, the QoS control, the protocol processing and the management agent processing | ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 |
| 195. | communication | network-triggered event | an event that occurs due to an explicit stimulus by a client. | ISO 9506-1/2 |
| 196. | modeling | <i>object</i> object <UML> object <entity model> entity model | <i>a tangible and visible thing</i> <i>1) a member of an object set and an instance of an object type. IEEE 1320.2-1998 (R2004), 2) an encapsulation of data and services that manipulate that data. ISO/IEC 3) a program constant or variable. 4) a specific entity that exists in a program at runtime in object-oriented programming. 5) pertaining to the outcome of an assembly or compilation process.</i> any thing perceivable or conceivable (ISO 1087-1 (2000)) entity with a well-defined boundary and identity that encapsulates state and behavior [UML] concept or a physical thing, which may exist in the real world. model of an entity [ISO/IEC 10746-2] | <i>Collins Dictionary WordNet 2.1 ISO/IEC 24765</i> Proposed by (jim) ISO 15745-1 ISO 15531-31/32 ISO 16100-2 |
| 197. | process | object flow | motion of a set of physical or informational objects in space and time. | ISO 15531-1/42/43 |
| 198. | modeling | <i>objective</i> objective <statement> statement of objective | <i>of or relating to a goal or aim the goal intended to be attained (and which is believed to be attainable) a goal or aim 1) something toward which work is to be directed, a strategic position to be attained, or a purpose to be achieved, a result to be obtained, a product to be produced, or a service to be performed. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) practical advantage or intended effect, expressed as preferences about future states. ISO/IEC 15414:2006</i> statement of preference about possible and achievable future situations that influences the choices within some behavior [Adapted from ISO/IEC 15414:2002]. | <i>Collins Dictionary WordNet 2.1 COED ISO/IEC 24765</i> ISO/CEN 19439/40 |
| 199. | modeling | <i>occurrence</i> occurrence <enterprise modeling language> | <i>in real world: something that occurs (happens, takes place, comes about) 1) an event that happens; 2) an instance of something occurring</i> single, actual realization of a modeling language construct that represents a particular entity in the real world at the time the model is processed | <i>Collins Dictionary WordNet 2.1</i> ISO/CEN 19440 |

| | | language construct occurrence | | |
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| 200. | <i>ontology</i> | <i>ontology</i> | <p><i>The set of entities presupposed by a theory</i> <i>the metaphysical study of the nature of being and existence</i> 1) <i>a lexicon of specialized terminology</i> 2) <i>a set of specifications (rules) that constraints the meaning of the terms</i> 1) <i>a logical structure of the terms used to describe a domain of knowledge, including both the definitions of the applicable terms and their relationships. IEEE 1175.1-2002</i></p> <hr/> <p>a lexicon of specialized terminology along with some specification of the meaning of terms in the lexicon [ISO 18629-1]</p> | <p>Collins Dictionary WordNet 2.1 Grubber</p> <hr/> <p>ISO/IEC 24765</p> <hr/> <p>ISO 18629-11/13/14</p> |
| 201. | <i>process</i> | <i>operation</i> | <p>1) <i>the act, process or manner of operating;</i> 2) <i>a process, method, or series of acts, esp. of a practical or mechanical nature</i> 1) <i>a business especially one run on a large scale;</i> 2) <i>a process or series of acts especially of a practical or mechanical nature involved in a particular form of work</i> 1) <i>an interaction between a client object and a server object which is either an interrogation or an announcement. ISO/IEC 10746-3:1996,</i> 2) <i>a property that is a mapping from the (cross product of the) instances of the class and the input argument types to the (cross product of the) instances of the other (output) argument types. IEEE 1320.2-1998 (R2004),</i> 3) <i>an action needed to perform an activity. ISO/IEC 15940:2006,</i> 4) <i>in computer mathematics, the action specified by an operator on one or more operands.</i> 5) <i>in programming, a defined action that can be performed by a computer system.</i> 6) <i>the process of running a computer system in its intended environment to perform its intended functions,</i></p> <hr/> <p>operation <job> job operation the completion of an action or work element to realise a specific result job or task consisting of one or more work elements, usually done essentially in one location [from APICS dictionary]</p> <hr/> <p>operation <activity> activity operation execution of activities involved in the achievement of enterprise purpose or of a part of it template (program code) or entity (running program) to execute activities involved in the achievement of device handling or of a part of it</p> <hr/> <p>operation <UML> service that can be requested from an object to effect behavior [UML]</p> | <p>Collins Dictionary WordNet 2.1</p> <hr/> <p>ISO/IEC 24765</p> <hr/> <p>ISO 15531-31 ISO 15531-43</p> <hr/> <p>proposed by (jjm) ISO 20242-3/4/5 WD</p> <hr/> <p>ISO 15745-1</p> |
| 202. | <i>process</i> | <i>operational (adj.)</i> | <p><i>of or relating to an operation</i> 1) <i>pertaining to a process or series of actions for achieving a result;</i> 2) <i>being in effect or operation</i> 1) <i>pertaining to a system or component that is ready for use in its intended environment.</i> 2) <i>pertaining to a system or component that is installed in its intended environment.</i> 3) <i>pertaining to the environment in which a system or component is intended to be used.</i></p> <hr/> <p>Operational Role <enterprise modeling construct> construct that represents the relevant human skills and responsibilities required to perform those operational tasks that are assigned to the particular Operational Role</p> | <p>Collins Dictionary WordNet 2.1</p> <hr/> <p>ISO/IEC 24765</p> <hr/> <p>ISO/CEN 19439</p> <hr/> <p>ISO/CEN 19440</p> |
| 203. | <i>process</i> | <i>Operator</i> | <p>1) <i>individual or organization that operates the system. ISO/IEC 25000:2005,</i> 2) <i>entity that</i></p> | <p>ISO/IEC 24765</p> |

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| | | | <i>performs the operation of a system. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 3) a symbol representing the name of a function. ISO/IEC 15909-1:2004, 4) an individual or an organization that contributes to the functionality of a system and draws on knowledge, skills, and procedures to contribute the function. IEEE 1220-2005 1) 5) a mathematical or logical symbol that represents an action to be performed in an operation.</i> | |
| | | operator station | an abstract object representing equipment associated with a VMD that provides for input/output interaction with an operator | ISO 9506-1/2 |
| 204. | <i>process</i> | <i>order</i> | <i>a commission or instruction to produce or supply a commercial document used to request someone to supply something in return for payment and providing specifications and quantities</i> | <i>Collins Dictionary WordNet 2.1</i> |
| | | order <construct> | a construct, which represents the necessary, input for a business process that co-ordinates and controls some other business process or activity. | ISO 15531-31 |
| | | Order <enterprise modeling construct> | construct that is a specialization of the Enterprise Object construct, which represents the information for planning and control of Business Processes in an enterprise | ISO/CEN 19440 |
| 205. | <i>modeling</i> | <i>organization</i> | <i>a business or administrative concern united and constructed for a particular end the persons (or committees or departments etc.) who make up a body for the purpose of administering something 1) a group of persons organized for some purpose or to perform some type of work within an enterprise. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) person or a group of people and facilities with an arrangement of responsibilities, authorities and relationships. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 3) people and processes assembled to produce a specific output (product or service). IEEE 1175.2-2006</i> | <i>Collins Dictionary WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | organization <enterprise> enterprise organization organization view | the structure of an enterprise and the distribution of responsibilities and authorities in the enterprise enterprise model view that enables the representation and modification of the organizational and decisional structure of the enterprise and the responsibilities of the individuals and organizational units within the enterprise | ISO 15704 ISO/CEN 19439/40 |
| | | Organizational Role <enterprise modeling construct> | construct that represents, within a given hierarchical structure of an enterprise, the organizationally relevant human skills and responsibilities required to perform those organizational tasks that are assigned to the particular Organizational Role | ISO/CEN 19440 |
| | | Organizational Unit <enterprise modeling construct> | construct that represents an entity of the organizational structure of an enterprise, which is described by attributes of the organization and references to both lower and higher level organizational entities | ISO/CEN 19440 |
| 206. | <i>modeling</i> | organizational structure <i>(copied from structure)</i> | the definition of the relationships among the components of an organization | ISO 15704 |
| 207. | <i>ontology</i> | outer core | set of core theories that are extensions of PSL-Core and that are so generic and pervasive in their applicability that they have been put apart | ISO 18629-13 |

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| 208. | modeling | parameter | <i>1) a symbol that can take a range of values defined by a set it is defined as a constant in the signature. ISO/IEC 15909-1:2004, 2) a variable that is given a constant value for a specified application. 3) a constant, variable, or expression that is used to pass values between software modules.</i> | ISO/IEC 24765 |
| | | parameter <naming convention> | attribute versus Parameter as naming convention for a data object to decide between special access possibilities depending on states | ISO 20242-3/4/5 |
| 209. | modeling | partial | <i>an incomplete mapping. IEEE 1320.2-1998 (R2004)</i> | ISO/IEC 24765 |
| | | partial level <enterprise modeling> | a collection of partial models. | ISO/CEN 19439/40 |
| 210. | modeling | partial model | model used as a reference model in a specific type of industry segment or industrial activity | ISO/CEN 19439/40 |
| 211. | modeling | particular level <enterprise modeling> | level at which a model is described for a particular, specific enterprise domain | ISO/CEN 19439/40 |
| 212. | modeling | particular model | a model of a particular, specific domain | ISO/CEN 19439 |
| 213. | modeling | particularization | <i>an individual description of a particular instance</i> | WordNet 2.1 |
| | | particularization <model> model particularization | process of specialization and instantiation by which more specific model components can be derived from more generic ones. | ISO/CEN 19439/40 |
| 214. | software | PDM <i>(copied from CAD/PDM)</i> | computer systems that are used for product design and modeling, engineering, product data management, and process data management. | ISO 16100-1 |
| 215. | process | performance | <i>manner or quality of functioning</i> | Collins Dictionary |
| | | | <i>process or manner of functioning or operating</i> <i>the degree to which a system or component accomplishes its designated functions within given constraints, such as speed, accuracy, or memory usage.,</i> <i>the behavior of the system with respect to time</i> | WordNet 2.1 ISO/IEC 24765 |
| 216. | process | performance indicator | <i>an assessment indicator that supports the judgment of the process performance of a specific process. ISO/IEC 15504-1:2004</i> | ISO/TR 13283 |
| | | | a metric or measure by which the achievement of an objective can be assessed | ISO/IEC 24765 |
| 217. | modeling | Person Profile <enterprise modeling construct> | construct that represents a set of personal capabilities, skills and responsibilities that are required by an Organizational Unit or an Enterprise Activity, or both, and that are provided by a person | ISO/CEN 19440 |
| 218. | modeling | personnel | <i>an individual expected to perform duties on behalf of the organization, including officers, employees and contractors. ISO/IEC 19770-1:2006</i> | ISO/IEC 24765 |
| | | personnel class | means to describe a grouping of persons with similar characteristics for purposes of scheduling and planning. | IEC/ISO 62264-1 |
| 219. | process | planning | <i>the act or process for drawing up plans or layouts for some project or enterprise</i> | WordNet 2.1 |
| | | planning <process> process planning | analysis and design of the sequence of processes, of the resource requirements and flow management constraints needed to achieve a given (ISO 10303-1) | ISO 15531-43 |
| 220. | software | platform | <i>a collection of hardware and software components that are needed for a CASE tool to operate. IEEE 1175.2-2006</i> | ISO/IEC24765 |
| | | platform adapter | program with an ISO 20242-specified interface, encapsulating the computer hardware and its periphery and providing services to communicate with connected devices and to use other | ISO 20242-1 |

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| | | | resources of the computer operating system | |
| 221. | <i>process</i> | point in time | location of something noticeable within a time domain | ISO 15531-42 ISO 18629-11 |
| 222. | commu- nication | policy control function (PCF) | the function that determines policy that is to apply to the operation of the subsystem | ISO/TR 13283 |
| 223. | <i>modeling</i> | predefined object <MMS> MMS Predefined Object | an object that is instantiated through the use of some mechanism other than an MMS service. | ISO 9506-1/2 |
| 224. | <i>ontology</i> | primitive concept | lexical term that has no conservative definition [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 225. | <i>ontology</i> | primitive lexicon | set of symbols in the non-logical lexicon which denote primitive concepts [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 226. | <i>process</i> | <i>process</i> | <i>a series of actions which produce a change or development a particular course of action intended to achieve a result a series of actions or steps towards achieving a particular end. 1) set of interrelated or interacting activities which transforms inputs into outputs. ISO/IEC 12207:2008, [ISO 9000:2005], ISO/IEC 15288:2008, 2) a predetermined course of events defined by its purpose or by its effect, achieved under given conditions. ISO/IEC 2382-1:1993, 3) a set of interrelated actions and activities performed to achieve a specified set of products, results, or services. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 4) a collection of steps taking place in a prescribed manner and leading to an objective. ISO/IEC 15414:2006, 5) in data processing, the predetermined course of events that occur during the execution of all or part of a program. ISO/IEC 2382-1:1993, 6) system of activities, which use resources to transform inputs into outputs. ISO/IEC 25000:2005, [ISO 9000:2005] 7) to perform operations on data. 8) a sequence of steps performed for a given purpose. 9) an executable unit managed by an operating system scheduler.</i> | <i>Collins Dictionary WordNet 2.1 OCED ISO/IEC 24765</i> |
| | | production process | a particular procedure for doing something involving one or more steps or operations. The process may produce a product, a property of a product, or an aspect of a product structured set of activities involving various enterprise entities that is designed and organized for a given purpose. partially ordered set of activities that can be executed to achieve some desired end-result in pursuit of a given objective | ISO 10303-49 ISO 15531-1/32/43 ISO 18629-11/13/14/43/44 ISO/CEN 19439 |
| | | process control process plan process planning | the function of maintaining a process within a given range of capabilities and capacities. package of information needed to enable the achievement of a process. analysis and design of the sequences of processes, resources requirements, needed to produce goods and services. | ISO 15531-1 ISO 15531-1 ISO 15531-1 |
| | | process segment | view of a collection of resources needed for a segment of production, independent of any particular product at the level of detail required to support business processes that may also be independent of any particular product. | IEC/ISO 62264-1 |
| 227. | <i>process</i> | process activity | action that a system performs on its universe of discourse in the framework of a process | Proposed by (jjm) |

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| | | <i>(copied from activity)</i> | operation. | |
| 228. | <i>modeling</i> | process functionality <i>copied from functionality</i> | qualities of a process that enable it to achieve the purpose for which the process exists | ISO/CEN 19439 |
| 229. | <i>process</i> | process planning <i>(copied from planning)</i> | analysis and design of the sequence of processes, of the resource requirements and flow management constraints needed to achieve a given (ISO 10303-1) | ISO 15531-43 |
| 230. | <i>process</i> | process task <i>(copied from task)</i> | activity expected to be performed in a process by the system that supports the process. | Propose by (jjm) |
| 231. | <i>modeling</i> | processable model | model with specified syntax and semantics, which can be processed by a computer (for analysis, simulation or execution) | ISO/CEN 19440 |
| 232. | <i>process</i> | producer (of profile) producer <profile> profile producer | generator of profile or Matching Level result for consumption | ISO 16100-3 |
| 233. | <i>process</i> | <i>product</i> | <i>something produced by effort or some mechanical or industrial process</i> <i>commodities offered for sale</i> <i>a thing or substance produced by a natural or artificial process</i> <i>1) an artifact that is produced, is quantifiable, and can be either an end item in itself or a component item. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) complete set of computer programs, procedures and associated documentation and data designed for delivery to a user. ISO/IEC 15910:1999, 3) output of the software development activities (e.g., document, code, or model). IEEE 1074-2006, 4) result of a process. ISO/IEC 12207:2008, ISO/IEC 15288:2008, [ISO 9000:2005].</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>OCED</i> <i>ISO/IEC 24765</i> |
| | | | 1) a result of an action or process 2) a substance produced during a natural, chemical, or manufacturing process. a thing or substance produced by a natural or artificial process (ISO 10303-1) | ISO 10303-1 |
| | | product data | a representation of information about a product in a formal manner suitable for communication, interpretation, or processing by human beings or by computers (ISO 10303-1) | ISO 15531-1/32/43 ISO 18629-11/42/43 |
| | | product segments | shared information between a bill of resources and a production rule for a specific product. | ISO 15531-1/32/43 |
| | | Product <enterprise modeling construct> | construct that is a specialization of the Enterprise Object construct, which represents the desired output or by-product of the Business Processes of an enterprise | IEC/ISO 62264-1 ISO/CEN 19440 |
| 234. | <i>process</i> | product component | entity that is part of, or capable of becoming part of, a larger whole a product that is not subject to decomposition from the perspective of a specific application (ISO 10303-1) | ISO/CEN 19440 ISO 15531-32 |
| 235. | <i>process</i> | <i>production</i> | <i>1) the act of producing; 2) the creation or manufacture of goods and services with exchange value</i> <i>1) the act or process of producing something; 2) the creation of value or wealth by producing goods and services</i> <i>steps involved in taking draft text and turning it into camera-ready originals, completed help</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |

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| | | production activity control production capacity | <i>text or online documentation. ISO/IEC 15910:1999</i> function of routing and dispatching the work to be achieved through the production facilities. ability of resources to perform production in the enterprise. The production capacity includes the capacity of those resources and represents. a) the collection of personnel, equipment, material, and process segment capabilities; b) the total of the current committed, available, and unattainable capacity of the production facility; c) the highest sustainable output rate that could be achieved for a given product mix, raw materials, worker effort, plant, and equipment. highest sustainable output rate that can be achieved with the current product specification, <u>production scheme and available resources</u> | ISO 15531-1 IEC/ISO 62264-1 ISO 15531-1 IEC/ISO 62264-1 |
| | | production control | collection of functions that manages all production within a site or area. function of monitoring and controlling the movement of goods through the entire manufacturing cycle | ISO 15531-1 ISO 15531-1 |
| | | production cycle production facilities; manufacturing facilities production forecast production line | the total time required to manufacture an item, exclusive of lower level purchasing lead time the physical plant and equipment marketing expectations translated into meaningful terms for production. series of pieces of equipment dedicated to the manufacture of a specific number of products or families. | ISO 15531-1 ISO 15531-1 IEC/ISO 62264-1 |
| | | production monitoring | function of checking and driving the status and the progress of production processes and activities. | ISO 15531-1 |
| | | production order control | control of the progress of each customer order, or stock through the successive operations of the production cycle. | ISO 15531-1 |
| | | production rules production unit | information used to instruct a manufacturing operation how to produce a product. set of production equipment that converts, separates, or reacts one or more feedstock's to produce intermediate or final products. | IEC/ISO 62264-1 IEC/ISO 62264-1 |
| 236. | <i>process</i> | production process <i>(copied from process)</i> | a particular procedure for doing something involving one or more steps or operations. The process may produce a product, a property of a product, or an aspect of a product structured set of activities involving various enterprise entities that is designed and organized for a given purpose. partially ordered set of activities that can be executed to achieve some desired end-result in <u>pursuit of a given objective</u> | ISO 10303-49 ISO 15531-1/32/43 ISO 18629-11/13/14/43/44 ISO/CEN 19439 |
| 237. | <i>modeling</i> | profile | <i>a graph or table representing the extent to which a person, field, or object exhibits various tested characteristics</i> <i>an analysis (often in graphical form) representing the extent to which something exhibits various characteristics</i> <u>a thing or substance produced by a natural or artificial process</u> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> ISO 10303 |
| | | profile <specification> | set of one or more base specifications and/or sub-profiles, and, where applicable, the identifi- | ISO 15745-1 |

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| | | | cation of chosen classes, conforming subsets, options and parameters of those base specifications, or sub-profiles necessary to accomplish a particular function, activity, or relationship [adapted from ISO/IEC TR 10000-1] | ISO 16100-2/4 |
| 238. | <i>process</i> | profile producer (<i>copied from producer (f profile)</i>) | generator of profile or Matching Level result for consumption | ISO 16100-3 |
| 239. | <i>modeling</i> | program Invocation | an abstract object representing a dynamic element that most closely corresponds to an execution thread in a multitasking environment composed of a set of Domains. | ISO 9506-1/2 |
| 240. | <i>ontology</i> | proof theory | set of theories and lexical elements necessary for the interpretation of the semantics of the language [ISO 18629-1] | ISO 18629-11/13 |
| 241. | <i>modeling</i> | <i>property</i> | <i>a quality or characteristic attribute, such as density or strength of a material essential attribute</i> <i>1) a basic or essential attribute shared by all members of a class; 2) a construct whereby objects or individuals can be distinguished</i> <i>a responsibility that is an inherent or distinctive characteristic or trait that manifests some aspect of an object's knowledge or behavior. IEEE 1320.2-1998 (R2004)</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | property <entity> | a real world characteristic, which is represented by either attributes or constraints. entity characteristic, which is represented by either attributes or constraints. | ISO 15531-31/32 Proposed by (kk) |
| 242. | commu- nication | <i>protocol</i> | <i>a set of conventions that govern the interaction of processes, devices, and other components within a system.</i> | ISO/IEC 24765 |
| | | protocol entity (PE) | the entity responsible for operating the protocol in order to provide the service to the service user and also responsible for operating with its peer protocol-entity, its peer service user, and the inferior service provider | ISO/TR 13283 |
| | | protocol error | a PDU that does not comply with the requirements of this part of ISO 9506. | ISO 9506-2 |
| 243. | <i>ontology</i> | PSL grammar (<i>copied from grammar</i>) | specification of how logical symbols and lexical terms can be combined to make well-formed formulae [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 244. | <i>ontology</i> | PSL lexicon (<i>copied from lexicon</i>) | set of symbols and terms [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 245. | <i>ontology</i> | PSL theory (<i>Copied from theory</i>) | set of axioms and definitions that pertain to a given concept or set of concepts [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 246. | <i>ontology</i> | PSL theory interpretation (<i>copied from interpretation</i>) | universe of discourse and assignment of truth values (TRUE or FALSE) to all sentences in a theory | ISO 18629-11/13 |
| 247. | <i>ontology</i> | PSL-core | set of axioms for the concepts of activity, activity-occurrence, time-point, and object [ISO 18629-1] | ISO 18629-11/13 |
| 248. | <i>ontology</i> | PSL-Core extension | augmentation of PSL-Core containing additional axioms [ISO 18629-1] | ISO 18629-11/14/43/44 |
| 249. | <i>process</i> | purchase requisition | request to the purchasing department to purchase specified materials in specific quantities within a specified time. | ISO 15531-1 |
| 250. | Q-S commu- | quality control function (QCF) | the function that takes account of QoS requirements in selecting the entities that will participate in communications | ISO/TR 13283 |

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| | nication | | | |
| 251. | commu- nication | quality of service (QoS) QoS alert QoS attribute QoS characteristic QoS context QoS data QoS enquiry QoS establishment QoS information QoS maintenance QoS management QoS management function QoS measure QoS mechanism QoS monitoring QoS parameter QoS requirement QoS operating target | a set of qualities related to the collective behavior of one or more objects the use of QoS mechanisms to signal to an entity that some limit has been reached or thresh- old crossed an attribute of a managed object relating to QoS a quantifiable aspect of QoS, which is defined independently of the means by which it is represented or controlled QoS information that is retained, interpolated or extrapolated by one or more entities and used in managing QoS QoS information other than QoS requirements, e.g. warning, QoS measures, and information used in QoS inquiries the use of QoS mechanisms to determine properties of the environment relating to QoS in which communications take place the use of QoS mechanisms to create the conditions for some systems activity before that activity occurs, so that a desired set of QoS characteristics is attained information related to QoS classified into QoS context (when retained in an entity), QoS parameters (when conveyed between entities), QoS requirements (if it expresses requirements for QoS) and QoS data (if it does not express requirements for QoS) the use of QoS mechanisms to maintain a set of QoS characteristics at required values for some systems activity, while the activity is in progress any set of activities performed by a system or communications service to support QoS moni- toring, control, and administration a function specifically intended to meet a user or application requirement for QoS, provided by one or more QoS mechanisms one or more observed values relating to a QoS characteristic a specific mechanism that may use protocol elements, QoS parameters, or QoS context, pos- sibly in conjunction with other QoS mechanisms, in order to support establishment, monitor- ing, maintenance, control, or enquiry of QoS the use of QoS measures to estimate the values of a set of QoS characteristics actually achieved for some systems activity QoS information that is conveyed between entities as part of a QoS mechanism QoS information that expresses part or all of a requirements to manage one or more QoS characteristics, e.g. a maximum value, a target, or a threshold QoS information that represents the target values of a set of QoS characteristics, derived from QoS requirements | ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 |
| 252. | commu- nication | receiving MMPM receiving MMS-user | the MMPM that receives an MMS PDU. the MMS-user that receives an indication or confirmation service primitive. | ISO 9506-1/2 ISO 9506-1/2 |
| 253. | modeling | reference | 1) a book or passage referred to; 2) a source of information or facts 1) an indicator that orients you generally; 2) the publication (or passage from a publication) | Collins Dictionary WordNet 2.1 |

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| | | | that is referred to; 1) the action of referring to something. 2) a mention or citation of a source of information in a book or article. | COED |
| | | reference model | a reference model is an abstract representation of the entities and relationships involved in a problem space, and forms the conceptual basis for the development of more concrete models of the space (and ultimately implementations, in a computing context). It thereby serves as an abstract template for the development of more specific models in some domain, and allows for comparison between complying models | Wikipedia |
| | | reference capability class structure reference dictionary | schema representing a hierarchy of capability classes to be used for capability profiling. list of capability classes used in the reference capability class structure | ISO 16100-3/4 ISO 16100-3 |
| 254. | modeling | Relationship | the state of being connected or related (an association) a state of connectedness between people 1) a real-world association among one or more entities. ISO/IEC 15474-1:2002 2) an association between two (not necessarily distinct) classes that is deemed relevant within a particular scope and purpose. IEEE 1320.2-1998 (R2004), 3) an association of interest between two entities. ISO/IEC 20926:2003, 4) a predicate involving two or more roles with assigned values. ISO/IEC 14769:2001, 5) a semantic connection between model elements. | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | relationship <modeling> | association between two or more entities that is significant for some intended purpose semantic connection among model elements [ISO/IEC 19501-1] | ISO/CEN 19440 ISO 15745-1 |
| 255. | process | remote device control and monitoring | the manipulation or inspection of the state of a device attached to the responder of a service request | ISO 9506-2 |
| 256. | communication | requesting MMS-user | the MMS-user that issues the request service primitive for a service. | ISO 9506-1/2 |
| 257. | modeling | requirements definition <model life cycle phase> | enterprise model phase that defines the enterprise operations needed to achieve enterprise objectives and the conditions necessary to enable those operations, both being without reference to implementation options or implementation decisions | ISO/CEN 19439/40 |
| 258. | modeling | Resource | a means of doing something a source of aid or support that may be drawn upon when needed 1) skilled human resources (specific disciplines either individually or in crews or teams), equipment, services, supplies, commodities, materiel, budgets, or funds. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 2) asset that is utilized or consumed during the execution of a process. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 3) a role (with respect to that action) in which the enterprise object fulfilling the role is essential to the action, requires allocation, or may become unavailable. ISO/IEC 15414:2006, 4) an enterprise object which is essential to some behavior and which requires allocation or may become unavailable. ISO/IEC 15414:2006 | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | resource <enterprise> enterprise resource | something that may be described in terms of a behavior, a capability, or a performance measure that is pertinent to the process | ISO 10304-49 |

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| | | | <p>any device, tool and means, excepted raw material and final product components, at the disposal of the enterprise to produce goods or services</p> <p>an enterprise entity that provides some or all of the capabilities required by the execution of an enterprise activity and/or business process</p> <p>enterprise entity that provides some or all of the capabilities required to execute an enterprise activity</p> <p>device, communications network, equipment, human or material used in a process</p> <p>enterprise entity that provides some or all of the capabilities required by the execution of an enterprise activity and/or business process (in the context of this standard, a collection of personnel, equipment, and/or material)</p> | <p>ISO 15531-1/32/43</p> <p>ISO 18629-1/42/43/44</p> <p>ISO 15704</p> <p>ISO/CEN 19439/40</p> <p>ISO 15745-1</p> <p>IEC/ISO 62264-1</p> <p>ISO 15531-31/32</p> |
| | | <p>resource characteristic</p> <p>resource configuration</p> <p>resource hierarchy</p> <p>resource information model (RIM)</p> <p>resource Management Service Interface</p> <p>resources requirements planning; rough cut capacity planning (RCCP)</p> <p>resource status</p> | <p>main property of a resource according to a given purpose.</p> <p>set of properties of resource configured for a specific manufacturing task.</p> <p>structure designed to enable a classification of resources.</p> <p>model of information addressing management of resources usage</p> <p>set of ISO 20242-specified service functions to communicate with a platform adapter</p> <p>service interface to use resources of an operating system and/or its peripheral communication features</p> <p>the process of converting the production plan and/or the master production schedule into capacity needs for key resources.</p> <p>property which identifies an individual resource availability at some point in time</p> | <p>ISO 15531-31/32</p> <p>ISO 15531-31/32</p> <p>ISO 15531-31/32</p> <p>ISO 15531-31/32</p> <p>ISO 20242-1</p> <p>ISO 20242-2 WD</p> <p>ISO 15531-1</p> <p>ISO 15531-31/32</p> |
| | | <p>resource view</p> | <p>specific set of resource characteristic associated to a given purpose</p> <p>enterprise model view that enables the representation and modification of enterprise resources</p> <p>enterprise model view that enables the representation and modification of enterprise resources and persons [Adapted from ISO/CEN 19439]</p> | <p>ISO 15531-31/32</p> <p>ISO/CEN 19439</p> <p>ISO/CEN 19440</p> |
| | | <p>Resource <enterprise modeling construct></p> | <p>a construct that is a specialization of the Enterprise Object construct, which represents the provided capabilities required to execute an Enterprise Activity.</p> | <p>ISO/CEN 19440</p> |
| 259. | <i>modeling</i> | <p>resource adaptation (copied from interpretation)</p> | <p>the process of adapting a resource construct from the integrated resources to satisfy a requirement of an application protocol. This may involve the addition of restrictions on attributes, the addition of constraints, the addition of relationships among resource constructs and application constructs, or all of the above (ISO 10303-1)</p> | <p>ISO 15531-32</p> |
| 260. | <i>process</i> | <p>resource capability (copied from capability)</p> | <p>ability to perform actions, including attributes on qualifications and measures of the ability as capacity</p> <p>quality of being able to perform a given activity [ISO 15531-1]</p> | <p>IEC/ISO 62264-1</p> <p>ISO 15531-1/32/43</p> <p>ISO/CEN 19439/40</p> |
| 261. | <i>modeling</i> | <p>resource characteristics</p> | <p>set of resources properties that are characterized by physical values.</p> | <p>ISO 15531-31/32</p> |
| 262. | <i>modeling</i> | <p>resource views</p> | <p>classified set of resource views</p> | <p>ISO 15531-31/32</p> |
| 263. | <i>commu-</i> | <p>responding MMS-user</p> | <p>the MMS-user that issues the response service primitive for a service.</p> | <p>ISO 9506-1/2</p> |

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| | <i>nication</i> | | | |
| 264. | <i>modeling</i> | <i>Role</i> | <i>usual function (what is his role in the organization)</i> <i>1) the actions and activities assigned to or required or expected of a person or group; 2) what something is used for</i> <i>1) the participation of an entity in a relationship. ISO/IEC 15474-1:2002, 2) a defined function to be performed by a project team member, such as testing, filing, inspecting, coding. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) --Third Edition. 3) the expression of an object playing a part in a relationship. ISO/IEC 15476-4:2005</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | role <model> | named specific behavior of an entity participating in a particular context [ISO/IEC 19501-1] | ISO 16100-2 |
| 265. | <i>modeling</i> | <i>rough cut capacity planning (RCCP) (copied from resources requirements planning)</i> | the process of converting the production plan and/or the master production schedule into capacity needs for key resources. | ISO 15531-1 |
| 266. | <i>modeling</i> | <i>scenario</i> | <i>a summary of the plot of a play, etc. including information about its characters, scenes, etc. a postulated sequence of possible events</i> <i>1) a step-by-step description of a series of events that may occur concurrently or sequentially. IEEE 1362-1998, 2) an account or synopsis of a projected course of events or actions. IEEE 1362-1998, 3) a description of a specific sequence of actions.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | scenario of interactions | use case, change case or other interaction between a system stakeholder and the system of interest reflecting one or more architectural concerns. | ISO/IEC WD 42010 |
| 267. | <i>process</i> | <i>scheduling</i> | <i>to make available or provide (something desired or lacking)</i> <i>setting an order and time for planned events</i> <i>to place n or on a schedule</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>Webster Dictionary</i> |
| | | scheduling <activity> activity scheduling | act, function or result of planning occurrences of manufacturing activities. | ISO 15531-1/42/43 |
| 268. | <i>software</i> | <i>schema</i> | <i>a plan, diagram, or scheme</i> <i>1) an internal representation of the world; an organization of concepts and actions that can be revised by new information about the world; 2) a schematic or preliminary plan a representation of a plan or theory in the form of an outline or model.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |
| | | schema <XML> XML schema | XML meta-data definition | <i>OCED</i> ISO 16100-3 |
| 269. | <i>modeling</i> | <i>semantic</i> | <i>of or relating to the meaning of different words or symbols</i> <i>the study of language meaning</i> <i>relating to meaning in language; relating to the connotation of words.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>COED</i> |
| | | semantic unit | a concept unambiguously defined, independently of any particular physical representation and which is semantically complete. | ISO 15531-1 |
| | | semantic information unit | a set of consistent information related to a collection of object or enterprise entities. | ISO 15531-1 |
| 270. | <i>communication</i> | <i>semaphore</i> | <i>an apparatus for conveying information by means of visual signals, as with flags, etc.</i> <i>an apparatus for visual signaling with lights or mechanically moving arms</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> |

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| | | | <i>a shared variable used to synchronize concurrent processes by indicating whether an action has been completed or an event has occurred.</i> | ISO/IEC 24765 |
| | | semaphore <MMS> MMS semaphore semaphore management | a conceptual lock associated with a logical or physical resource that permits access to that resource only by an owner of the lock. the control of semaphores. | ISO 9506-2 ISO 9506-1/2 |
| 271. | commu- nication | sending MMPM sending MMS-user | the MMPM that sends an MMS PDU. the MMS-user that issues a request or response service primitive. | ISO 9506-1/2 ISO 9506-1/2 |
| 272. | modeling | sequence diagram <objects> | deleted not in final document | ISO 15745-1 |
| 273. | commu- nication | server | <i>(computer science) a computer that provides client stations with access to files and printers as shared resources to a computer network</i> 1) a process implementing one or more operations on one or more objects. ISO/IEC 19500-2:2003, 2) a hardware system or software program which provides a service to clients. | WordNet 2.1 ISO/IEC 24765 |
| | | server <VMD> VMD server | the peer communicating entity that behaves as an agent for a VMD for a particular service request instance. | ISO 9506-1/2 |
| 274. | general | service entity | an implementation (of a service interface) | ISO 20242-2/3 WD |
| 275. | d software | software | <i>the programs that can be used with a particular computer system, esp. those that are supplied by the manufacturer</i> <i>(computer science) written programs or procedures or rules and associated documentation pertaining to the operation of a computer system and that are stored in read/write memory</i> 1) all or part of the programs, procedures, rules, and associated documentation of an information processing system. ISO/IEC 2382-1:1993, 2) computer programs, procedures, and possibly associated documentation and data pertaining to the operation of a computer system. | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | architecture | <i>(computer science) the structure and organization of a computer's hardware or system software;</i> | WordNet 2.1 |
| | | software architecture | fundamental organization of a software system embodied in its components, their relationships to each other and to the environment, and the principles guiding its design and evolution [IEEE 1471-2000]. | ISO 16100-1 |
| | | software capability catalogue software environment | user-specified or vendor-specified unique collection of software capabilities within MAPLE other manufacturing resources within the computing system that affect the operational aspects of the manufacturing software unit. | ISO 13281-2 ISO 16100-1 |
| 276. | process | software capability class <i>(copied from capability)</i> | an element within the capability profiling method that represents software unit functionality and behavior with regard to the software units role in a manufacturing activity | ISO 16100-2/5 |
| 277. | process | software component | 1) a general term used to refer to a software system or an element, such as module, unit, data, or document. IEEE 1061-1998 (R2004), 2) a functionally or logically distinct part of a software configuration item, distinguished for the purpose of convenience in designing and specifying a complex SCI as an assembly of subordinate elements. | ISO/IEC 24765 |
| | | | part of a manufacturing software unit, including manufacturing software components | ISO 16100-3 |

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| 278. | software | software tool | <i>1) a software product providing automatic support for software life-cycle tasks. ISO/IEC TR 15846:1998, 2) a computer program used in the development, testing, analysis, or maintenance of a program or its documentation.</i> | ISO/IEC 24765 |
| | | software Tool Linker | a Manufacturing Software Tool to select and sequence other Manufacturing Software Tools and Manufacturing Application Programs to fulfill MAPLE Engine requests. manufacturing software to analyze, select and sequence other Manufacturing Software Programs to fulfill MAPLE Engine requests | ISO 13281 ISO 13281-2 |
| 279. | communication | spatial coherence | a property of duplicated lists of variables indicating whether or not all the copies are identical at a given time or within a given time window | ISO/TR 13283 |
| 280. | general | <i>specialization (noun)</i> | <i>modified for a special use or purpose the act of specializing; making something suitable for a special purpose</i> | <i>Collins Dictionary WordNet 2.1</i> |
| | | <i>specialize (verb)</i> | <i>1) to train in or devote oneself to a particular area of study, occupation or activity; 2) to modify for a special use or purpose 1) devote oneself to a special area of work; 2) become more special a change by an instance from being an instance of its current class to being additionally an instance of one (or more) of the subclasses of the current subclass. IEEE 1320.2-1998 (R2004)</i> | <i>Collins Dictionary WordNet 2.1 ISO/IEC 24765</i> |
| | | specialization of concepts | general concept modified for a more limited extent, specific use or purpose, or the act of adding or modifying details to a general concept to produce a specialization thereof | ISO/CEN 19439/40 |
| 281. | modeling | <i>stakeholder</i> | <i>someone entrusted to hold the stakes for two or more persons betting against each other someone entrusted to hold the stakes for two or more persons betting against one another, must deliver the stakes to the winner a person with an interest or concern in something, esp. business 1) individual or organization having a right, share, claim, or interest in a system or in its possession of characteristics that meet their needs and expectations. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 2) individual, group or organization that can affect, be affected by, or perceive itself to be affected by, a risk. ISO/IEC 16085:2006, 3) individual or organization that sponsors measurement, provides data, is a user of the measurement results or otherwise participates in the measurement process. ISO/IEC 15939:2002</i> | <i>Collins Dictionary WordNet 2.1 COED ISO/IEC 24765</i> |
| | | stakeholder <system> system stakeholder stakeholder (of a system): | interested party having a right, share or claim in the system or in the system's possession of qualities that meet their needs [Adapted from ISO/IEC 15288:2002] individual, team, organization or classes thereof, having concerns with respect to, a system. an individual, team, or organization having concerns relative to a system. | ISO/CEN 19439 ISO/IEC WD 42010 ISO TC184 SC5/WG1 & JTC1 SC7/WG42 joint meeting |
| 282. | modeling | standardized object <MMS> MMS standardized object | an object instantiation whose definition is provided in this part of ISO 9506 or in an MMS Companion Standard. | ISO 9506-1/2 |
| 283. | modeling | <i>state</i> | <i>the condition of a person, thing, etc., with regard to main attributes the way something is with respect with its main attributes</i> | <i>Collins Dictionary WordNet 2.1</i> |

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| | | | <i>the condition of someone or something at a particular time.</i> <i>1) the unique value that represents the stage of progress of software in its execution. ISO/IEC 11411:1995, 2) a condition that characterizes the behavior of a function/subfunction or element at a point in time. IEEE 1220-2005, 3) the values assumed at a given instant by the variables that define the characteristics of a system, component, or simulation. 4) a condition or mode of existence that a system, component, or simulation may be in.</i> | COED ISO/IEC 24765 |
| | | state <UML> | condition or situation during the life of an object during which it satisfies some condition, performs some activity, or waits for some event [UML] | ISO 15745-1 |
| 284. | <i>modeling</i> | statement of objective <i>(copied from objective)</i> | statement of preference about possible and achievable future situations that influences the choices within some behavior [Adapted from ISO/IEC 15414:2002]. | ISO/CEN 19439/40 |
| 285. | <i>modeling</i> | <i>structure</i> | <i>a complex construction or entity</i> <i>1) a thing constructed; a complex entity constructed of many parts; 2) the complex composition of knowledge as elements and their combinations</i> <i>the arrangement of and relations between the parts of something complex</i> | Collins Dictionary WordNet 2.1 COED |
| | | structure <system> system structure structure <organizational> organizational structure structure of resource characteristics | a set of interrelated parts of any complex thing, and the relationships between them (ISO 10303-1) the definition of the relationships among the components of an organization set of classified resource characteristics. | ISO 15531-32 ISO 15704 ISO 15531-31/32 |
| 286. | <i>process</i> | <i>Supplier</i> | <i>to make available or provide (something desired or lacking)</i> <i>some whose business is to supply particular service or commodity</i> <i>1) organization or individual that enters into an agreement with the acquirer for the supply of a product or service. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 2) an organization that develops some or all of the project deliverables for an acquirer. IEEE 1058-1998, 3) the organization that sells the software package to the consumer. ISO 9127:1988, 4) a person or organization that enters into a contract with the acquirer for the supply of a software product (which may be part of a system) under the terms of the contract. IEEE 1062, 1998, Edition (R2002), 5) the person, or persons, who produce a product for a customer. IEEE 830-1998, 6) organization that enters into an agreement with the acquirer for the supply of a system, software product or software service under the terms of that agreement. ISO/IEC 15939:2002</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | supplier plant | the plant, for a given supplier, which is involved in the manufacturing process. | ISO 15531-1 |
| 287. | <i>process</i> | supply chain planning | usage of information technology to address planning and logistics problems at different levels and granularities of detail using models for a product line, a production plant, or a full chain of multiple demand sources, suppliers, production plants, and distribution means. | ISO 16100-1 |
| 288. | <i>general</i> | <i>system</i> | <i>a group or combination of interrelated, interdependent, or interacting elements forming a collective entity</i> <i>a group of independent but interrelated elements comprising a unified whole</i> | Collins Dictionary WordNet 2.1 |

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| | | | <p>a set of things working together as a mechanism or interconnecting network.</p> <p>1) combination of interacting elements organized to achieve one or more stated purposes. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 2) an interdependent group of people, objects, and procedures constituted to achieve defined objectives or some operational role by performing specified functions. IEEE 1233, 1998 Edition (R2002), 3) a collection of interacting components organized to accomplish a specific function or set of functions within a specific environment. IEEE 1362-1998, 4) an interacting combination of elements to accomplish a defined objective. ISO/IEC TR 19759:2005, 5) a set or arrangement of elements that are related, and whose behavior satisfies operational needs and provides for the life cycle sustainability of the products. IEEE 1220-2005, 6) a conceptual entity defined by its boundaries.</p> | COED ISO/IEC 24765 |
| | | system of interest | <p>a collection of components organized to accomplish a specific function or set of functions</p> <p>collection of real-world items organized for a given purpose</p> <p>something of interest as a whole or as comprised of parts [ISO/IEC 10746-2]</p> <p>system whose architecture is under consideration in the context of this International Standard and is the subject of an architectural description.</p> | ISO/IEC 25061 (IEEE 1471) ISO 15704 ISO/CEN 19439/40 ISO 15745-1 ISO/IEC WD 42010 |
| 289. | general | systems architecture | the composite of the design architectures for products and their life cycle processes. IEEE 1220-2005 | ISO/IEC 24765 |
| | | systems architecture (copied from architecture) | the fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design and evolution | ISO/IEC 25061 (IEEE 1471) ISO/IEC WD 42010 ISO 15704 |
| 290. | modeling | system behavior | <p>how an element acts and reacts.</p> <p>how the whole or part of the system acts and reacts</p> <p>manner in which the whole or part of a system acts and reacts to perform a function [Adapted from ISO 15704:2000].</p> | ISO 14258 ISO 15704 ISO/CEN 19439 |
| 291. | process | system component | entity, with discrete structure within a system, which interacts with other components of the system, thereby contributing at its lowest level to the system properties and characteristics [Adapted from ISO/IEC 15288:2002]. | ISO/CEN 19439/40 |
| 292. | general | system concern | area of interest in a system pertaining to developmental, technological, business, operational, organizational, 182 political, regulatory, social, or other influences important to one or more of its stakeholders | ISO/IEC WD 42010 |
| 293. | general | system constraint | <p>restrictions and limitations on the system that can come from inside or outside the system under consideration.</p> <p>restriction or limitation or condition placed upon a system that originates from inside or outside the system under consideration</p> <p>restriction or limitation or condition placed upon a system</p> | ISO 14258 ISO/CEN 19439/40 Proposed byn (dns) |
| 294. | modeling | system element | member of a set of elements that constitutes a system. ISO/IEC 12207:2008, ISO/IEC | ISO/IEC 24765 |

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| | | system element | <i>15288:2008</i> a basic system part that has the characteristics of state, behavior, and identification static representation of a part of the universe of discourse that may be identified and characterized by its behavior and attribute | ISO 14258 ISO 15531-1/42 |
| 295. | <i>modeling</i> | system environment <i>(copied from architecture)</i> | context which determines the setting and circumstances of developmental, technological, business, operational, organizational, political, regulatory, social, and other critical influences upon a system. | ISO/IEC WD 42010 |
| 296. | <i>process</i> | system function | a grouping of several activities performed to realise some manufacturing objectives | ISO TR 10314 |
| | | | what a system (or a process) is expected to do | Proposed by (jjm) |
| 297. | <i>process</i> | system mission <i>(copied from mission)</i> | a use or operation of a system to achieve one or more purposes or objectives. | ISO/CEN 19439 |
| 298. | <i>modeling</i> | <i>system stakeholder</i> | <i>an individual, team, or organization (or classes thereof) with interests in, or concerns relative to, a system. IEEE 1471-20</i> | <i>ISO/IEC 24765</i> |
| | | system stakeholder <i>(copied from stakeholder)</i> | interested party having a right, share or claim in the system or in the system's possession of qualities that meet their needs [Adapted from ISO/IEC 15288:2002] | ISO/CEN 19439 |
| 299. | <i>modeling</i> | system structure <i>(copied from structure)</i> | a set of interrelated parts of any complex thing, and the relationships between them (ISO 10303-1) | ISO 15531-32 |
| 300. | T-Z <i>process</i> | <i>task</i> | <i>a specific piece of work required to be done any piece of work that is undertaken or attempted 1) the activities required to achieve a goal. ISO/IEC TR 9126-4:2004, 2) a term for work whose meaning and placement within a structured plan for project work varies by the application area, industry, and brand of project management software. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 3) required, recommended, or permissible action, intended to contribute to the achievement of one or more outcomes of a process. ISO/IEC 12207:2008, ISO/IEC 15288:2008, 4) a sequence of instructions treated as a basic unit of work by the supervisory program of an operating system. 5) in software design, a software component that can operate in parallel with other software components. 6) a concurrent object with its own thread of control.,</i> | <i>Collins Dictionary WordNet 2.1 ISO/IEC 24765</i> |
| | | task <MAPLE> task list task planner | elemental description of a work item internal to MAPLE sequenced set of tasks that may include complex sequences of concurrent tasks function to analyze a request from the MAPLE Engine and to select and sequence Manufacturing Software Programs into a task list to be executed by the Execution Manager | ISO 13281-2 ISO 13281-2 ISO 13281-2 |
| | | task <process> process task | activity expected to be performed in a process by the system that supports the process. | Proposed by (jjm) |
| 301. | <i>general</i> | <i>taxonomy</i> | <i>the science or practice of classification a classification of organisms into groups based on similarities of structure or origin etc.</i> | <i>Collins Dictionary WordNet 2.1</i> |

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| | | taxonomy of profiles | <i>a scheme that partitions a body of knowledge and defines the relationships among the pieces.</i> classification scheme for referencing profiles or sets of profiles unambiguously [ISO/IEC TR 10000-1] | ISO/IEC 24765 ISO 16100-2 |
| 302. | modeling | template | <i>a gauge or pattern, cut out in wood or metal, used in woodworking, etc., to help shape something accurately</i> <i>a model or standard for making comparisons</i> <i>1) a shaped piece of rigid material used as a pattern for processes such as cutting out, shaping, or drilling. 2) something serving as a model or example.</i> <i>an asset with parameters or slots that can be used to construct an instantiated asset. IEEE 1517-1999 (R2004)</i> | Collins Dictionary WordNet 1.7.1 COED ISO/IEC 24765 |
| | | template <software profile> | a schema for a manufacturing software capability profile schema for a manufacturing software capability profile | ISO 16100-3/4 |
| 303. | communication | temporal coherence | a property of a list of variables indicating whether or not the value of each variables in the list has been produced and transmitted and/or received within a given time window | ISO/TR 13283 |
| 304. | process | testing | <i>an examination of the characteristics of something</i> | WordNet 2.1 |
| | | ???Name missing | the determination whether assemblies and/or products or parts of both conform to a set of parameter and functional specifications. (rp) | ISO 20242 |
| 305. | ontology | theory | <i>1) a plan formulated in the mind only; 2) a system of rules, procedures, and assumptions used to produce an result</i> <i>1) a well-substantiated explanation of some aspect of the natural world; an organized system of accepted knowledge that applies in a variety of circumstances to explain a specific phenomena</i> <i>1) a supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing to be explained. 2) a set of principles on which an activity is based</i> | Collins Dictionary WordNet 2.1 OCED |
| | | theory <PSL> PSL theory | set of axioms and definitions that pertain to a given concept or set of concepts [ISO 18629-1] | ISO 18629-11/13/14/43/44 |
| 306. | general | time | <i>the continuous passage of existence in which events pass from a state of potentiality in the future, through the present, to a state of finality in the past</i> <i>1) the continuum of experience in which events pass from the future through the present to the past; 2) the fourth coordinate that is required (along with the three spatial coordinates) to specify a physical event:</i> <i>the indefinite continued progress of existence and events in the past, present, and future, regarded as a whole</i> | Collins Dictionary WordNet 2.1 COED |
| | | time <universe of discourse> | feature of the enterprise universe of discourse that enables the location of noticeable things along an infinite oriented axis and allows the ordering of their succession or the identification and characterization of this succession | ISO 15531-42 |
| | | time domain; period | set of points in time | ISO 15531-42 |

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| | | time model time interval time-critical communications (TCC) time-critical communications architecture (TCCA) time-critical communications entity (TCCE) time-critical communications group (TCCG) time-critical communications network (TCCN) time-critical network management TCNM time-critical communications system (TCCS) time-critical communications transaction (TCCT) time-critical data transmission (TCDT) time-critical multi peer data transmission (TCMDT) time window (TW) | model of the enterprise environment feature “time”. identification of an intervening time (ISO 10303-41ed2) when one or more application process which send a message require it to be received (or received and acted upon, or received and acted upon and confirmed) within a certain bounded time period window after its send request to the system an architecture, in the sense of the OSI reference model, which supports the identified requirements for time-critical communications an entity participating in time-critical communications (a time-critical communications entity may or may not map directly to an application entity since a single application entity could have time-critical and non-time-critical components) a group of time-critical communications entities in a time-critical communications system a network of an implementation of a time-critical communications architecture network management which supports network management functionality to be identified in this work a system in which there are time-critical communications an ordered set of message transfers (or exchanges) coming from different application entities which all have to be completed within a given time window the transmission of a PDU within a given time window the transmission of a protocol data unit to more than one destination within a defined time window or time windows a bounded time interval which is characterized by starting time and delay or starting time and end time which are application dependent | ISO 15531-1/42 ISO 15531-42 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 ISO/TR 13283 |
| 307. | <i>modeling</i> | time domain | collection of one dimension elements, that can be ordered and positioned applying a given measure method | ISO 15531-42 |
| 308. | <i>modeling</i> | <i>type</i> | <i>a kind, class, or category, the constituents of which share similar characteristics</i> <i>a subdivision of a particular kind of thing</i> <i>a category of people or things having common characteristics.</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>COED</i> |
| | | type <variable> type (of an <X>) type I matcher type II matcher | an abstract description of a set of values that may be conveyed by the value of a variable. predicate characterizing a collection of <X>s [ISO/IEC 10746-2] matcher that can process profiles derived from the same capability class structure matcher that can process profiles whether they are derived from the same or from different capability class structures | ISO 9506-2 ISO 15745-1 ISO 16100-3 ISO 16100-3 |
| 309. | <i>process</i> | unattainable capacity | portion of the production capacity that cannot be attained. | IEC/ISO 62264-1 |
| 310. | <i>general</i> | unit of time | unit, that is implicitly or explicitly a multiple of the internationally defined second, to which a measure of time in a time domain has to refer | ISO 15531-42/43 |

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| 311. | software | unit under test | capability profile, capability template, capability class structure or profile matcher being evaluated to determine if it meets or provides specific characteristics described in ISO 16100 | ISO 16100-4 |
| 312. | general | <i>universe of discourse</i> | <i>all the instances in a given class</i> <i>everything stated and assumed in a given discussion</i> | <i>Webster</i> <i>WordNet 2.1</i> |
| | | universe of discourse <modeling> modeling universe of discourse | the collection of concrete or abstract things that belong to an area of the real world, selected according to its interest for the system to be modeled and for its corresponding environment. collection of entities that ever have been, are, or always will be, in a selected portion of the real world or postulated world of interest that is being described by the models | ISO 15531-1/42/43 ISO 18629-11/13 ISO/CEN 19440 |
| 313. | commu- nication | <i>Upload</i> | <i>transfer a file or program to a central computer from a smaller computer or a computer at a remote location</i> <i>to transfer programs or data from a connected computer to a computer with greater re-sources. ISO/IEC 2382-1:1993</i> | <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | upload <domain content> domain upload | the process of transferring the content of a Domain, including any subordinate objects, via load data from a remote user, in such a manner as to allow subsequent download. | ISO 9506-1/2 |
| 314. | modeling | <i>use case</i> | <i>in UML, a complete task of a system that provides a measurable result of value for an actor.</i> | <i>ISO/IEC 24765</i> |
| | | use case <class, UML> | specification of a sequence of actions, including variants, that a system (or other entity) can perform, interacting with actors of the system [UML] | ISO 15745-1 |
| 315. | general | <i>user</i> | <i>1) a person who makes use of a things; someone who uses or employs something</i> <i>1) person who employs software to perform a task. IEEE 1063-2001, 2) person who interacts with the product. ISO/IEC 25062:2006, 3) individual or organization who uses a software-intensive system in daily work activities or recreational pursuits. IEEE 1362-1998, 4) the person or organization that will use the project's product or service. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) -- Third Edition. 5) person or thing that communicates or interacts with the software at any time. ISO/IEC 14143-1:2007, 6. a person (or instance) who uses the functions of a CBSS via a terminal (or an equivalent machine-user interface) by submitting tasks and receiving the computed results. ISO/IEC 14756:1999, 7) the person who derives engineering value through interaction with a CASE tool. IEEE 1175.2-2006, 8) individual or group that benefits from a system during its utilization. ISO/IEC 15288:2008</i> | <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |
| | | user of standard | one who applies the requirements of this International Standard for whatever purpose. | ISO 14258 |
| 316. | commu- nication | valid PDU | a PDU that complies with the requirements of this part of ISO 9506 with respect to structure and meaning [ISO 9506-1] | ISO 9506-2 |
| 317. | modeling | <i>variable (noun)</i> | <i>1) a symbol representing any unspecified number, quantity, etc., belonging to a set; 2) some-thing that is subject to variations</i> <i>1) a quantity that can assume any of a set of values; 2) a symbol (like x or y) that is used in mathematical or logical expressions to represent a variable quantity</i> <i>1) an instance whose identity is unknown at the time of writing. IEEE 1320.2-1998 (R2004), 2) a quantity or data item whose value can change. 3) a data item whose value can change</i> | <i>Collins Dictionary</i> <i>WordNet 2.1</i> <i>ISO/IEC 24765</i> |

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| | | variable <data element> variable access <VMD> | <i>during program execution.</i> one or more data elements that are referred to together by a single name or description. the inspection or modification of variables or components of variables defined at a VMD. | ISO 9506-1/2 ISO 9506-1/2 |
| 318. | modeling | view | 1) opinion; 2) a desired end or intention; 3) visual aspect or appearance 1) a way of regarding situations or topics etc.; 2) the range of interest or activity that can be anticipated the ability to see something or to be seen from a particular position 1) a collection of subject domains, classes, relationships, responsibilities, properties, constraints, and notes assembled or created for a certain purpose and covering a certain scope. IEEE 1320.2-1998 (R2004), 2) a collection of entities and assigned attributes (domains) assembled for some purpose. IEEE 1320.2-1998 (R2004), 3) a set of related categories. ISO/IEC TR 1200182:1998, 4) a representation of a whole system from the perspective of a related set of concerns. IEEE 1471-20, 5) a developer's copy of a branch. | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | view <UML> view <system> system view | projection of a model, which is seen from a given perspective or vantage point and omits entities that are not relevant to this perspective [UML] a representation of a whole system from the perspective of a related set of concerns | ISO 15745-1 ISO/IEC 25061 (IEEE 1471) |
| 319. | | view correspondence | relation between two architectural views in an architectural description, used to enforce consistency or other relationships within the architecture being described | ISO/IEC WD 42010 |
| 320. | | view correspondence rule | a contract between two architectural viewpoints, enforced on a view correspondence | ISO/IEC WD 42010 |
| 321. | modeling | viewpoint | <i>the mental attitude that determines a persons judgments</i> <i>a mental position from which things are viewed</i> <i>a specification of the conventions for constructing and using a view. IEEE 1471-20</i> <i>a form of abstraction achieved using a selected set of architectural concepts and structuring rules, in order to focus on particular concerns within a system. ISO/IEC 10746-2:1996</i> | Collins Dictionary WordNet 2.1 ISO/IEC 24765 |
| | | viewpoint (on a system) | | |
| | | viewpoint <pattern/template> viewpoint pattern | a specification of the conventions for constructing and using a view. A pattern or template from which to develop individual views by establishing the purposes and audience for a view and the techniques for its creation and analysis | ISO/IEC 25061 (IEEE 1471) |
| 322. | modeling | virtual | <i>having the essence or effect, but not the appearance or form of</i> <i>1) being actually such in almost every respect; 2) existing in essence or effect though not in actual fact</i> <i>not physically existing as such but made by software to appear to do so.</i> <i>1) pertaining to a functional unit that appears to be real, but whose functions are accomplished by other means. ISO/IEC 2382-1:1993, 2) for an entity, being composed of one or more underlying base entities. ISO/IEC 15476-4:2005</i> | Collins Dictionary WordNet 2.1 COED ISO/IEC 24765 |
| | | virtual device | representation of one or more physical devices and/or stand-alone program entities to provide an unambiguous view on the resources of a communication interface | ISO 20242-1 |

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| | | virtual device service interface virtual manufacturing device (VMD) virtual manufacturing device (VMD)-specific | set of ISO 20242-specified service functions to communicate with a virtual device an abstract representation of a specific set of resources and functionality at a real manufacturing device and a mapping of this abstract representation to the physical and functional aspects of the real manufacturing device. an adjective used to describe an object whose name has a scope that is a single VMD (i.e. the name may be referenced by all application associations established with the VMD). | ISO 20242-1 ISO 9506-1/2 ISO 9506-1/2 |
| 323. | <i>communication</i> | VMD client <i>(copied from client)</i> | the peer communicating entity that makes use of the VMD for some particular purpose via a service request instance. | ISO 9506-1/2 |
| 324. | <i>modeling</i> | VMD domain | an abstract object that represents a subset of the capabilities of a VMD that is used for a specific purpose. | ISO 9506-1/2 |
| 325. | <i>communication</i> | VMD server <i>copied from server</i> | the peer communicating entity that behaves as an agent for a VMD for a particular service request instance. | ISO 9506-1/2 |
| 326. | <i>process</i> | work cell | dissimilar machines grouped together to produce a family of parts having similar manufacturing requirements. | IEC/ISO 62264-1 |
| 327. | <i>process</i> | work flow control | a specific production control system that is based primarily on setting production rates and feeding work into production to meet these planned rates, then monitoring and controlling production. a representation or description of manufacturing related flows describing only the aspects to be relevant to its purpose. | ISO 15531-1/42/43 ISO 15531-1/43 |
| 328. | <i>software</i> | XML schema <i>(Copied from schema)</i> | XML meta-data definition | ISO 16100-3 |

References I- ISO Standards used in the glossary

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| 1 | <p>ISO FDIS 9506 <i>Industrial automation systems — Manufacturing Message Specification –</i> <i>Part 1: Service definition, Ref: ISO 9506-1, second edition, 2003-08-01</i> <i>Part 2: Protocol specification, Ref: ISO 9506-2, second edition, 2003-07-01</i></p> |
| 2 | <p>ISO 13281 <i>Industrial automation systems – Manufacturing Automation Programming Environment (MAPLE)</i> <i>Part 1: Functional architecture, Ref: ISO 13281, first edition, 1997-08-15</i> <i>Part 2: Services and interfaces, Ref: ISO 13281-2, first edition, 2000-03-15</i></p> |
| 3 | <p>ISO IS 14258 <i>Industrial automation systems – Concepts and rules for enterprise models, Ref: ISO 14258, first edition, 1996-09-01</i></p> |
| 4 | <p>ISO 15531-1 <i>Industrial automation system and integration - Industrial manufacturing management data:</i> <i>Part 1: General overview, TC 184 SC4 WG8, N286, dated: 2002-06-28</i> ISO 15531-31 <i>Industrial automation system and integration - Manufacturing management data exchange: Resources usage management data:</i> <i>Part 31: Resources information model: basic concepts, TC 184 SC4 WG8, N290, dated: 2002-07-01</i> <i>Part 32: Conceptual model for resources usage management data, ISO 15531-32:2005(E)</i> <i>Part 42: Time Model, ISO 15531-42:2005(E)</i> ISO/CD 15531-43 <i>Manufacturing flow management data:</i> <i>Part 43: Conceptual model for manufacturing flow management, ISO 15531-43:2005(E)</i></p> |
| 5 | <p>ISO IS 15704 <i>Industrial automation systems – Requirements for enterprise reference architectures and methodologies, Ref: ISO 15704, first edition 2000-06-01</i></p> |
| 6 | <p>ISO/DIS 15745 <i>Industrial automation systems and integration — Open systems application integration frameworks</i> <i>Part 1: Generic reference description, Ref: ISO 15745-1, first edition, 2003-03-01</i> <i>Amd1, Ref: ISO 15745-1, Amendment 1, 2007-04-01</i> <i>Definitions apply to parts 2-4 of this standard</i></p> |
| 7 | <p>ISO IS 16100-1 <i>Industrial automation systems and integration — Manufacturing software capability profiling for interoperability –</i> <i>Part 1: Framework, Ref: ISO 16100-1, first edition, 2002-12-15</i> <i>Part 2: Profiling methodology, Ref: ISO 16100-2, first edition 2003-11-01</i> <i>Part 3: Interface Protocols and Capability Templates, Ref: ISO 16100-3, first edition 2005-12-15</i> <i>Part 4: Conformance test, methods, criteria, and reports, Ref: ISO 16100-4, first edition 2006-12-15</i> <i>Part 5: TBD</i></p> |
| 8 | <p>ISO 18629-11 <i>Industrial automation system and integration – Process specification language</i> <i>Part 11: PSL-Core, ISO 18629-11:2005(E)</i> <i>Part 13: Duration and Ordering Theories, ISO TC184/SC4/JWG8, N 417, dated: 2004-07-06</i> <i>Part 14: Resource Theories, ISO TC184/SC4/JWG8, N 420, dated: 2004-07-07</i> <i>Part 42(?): Definitional extension: Temporal and State extensions, ISO TC184/SC4/JWG8, N 401, dated: 2004-03-02</i> <i>Part 43: Definitional extension: Activity Ordering and Duration extensions, ISO TC184/SC4/JWG8, N 419, dated: 2004-07-07</i> <i>Part 44: Definitional extension: Resource extensions, ISO TC184/SC4/JWG8, N 421, dated: 2004-07-07</i></p> |
| 9 | <p>ISO 20242 <i>Industrial automation system and integration – Service Interface and Testing Applications, Part 1: Overview, Ref: ISO 20242-1, first edition 2005-10-15</i></p> |

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| | Part 2: Part 3: Part 4: Part 5: |
| 10 | CEN ISO 19439 <i>CIM Systems Architecture — Framework for enterprise modeling, Ref: ISO 19439, first edition, 2006-04-15</i> |
| 11 | CEN ISO 19440 <i>Enterprise Integration – Constructs for Enterprise Modeling, Ref: ISO 19440, first edition 2007-12-01</i> |
| 12 | ISO/IEC/DIS 25961 Recommended Practice for Architectural Description of Software-Intensive Systems IEEE Std 1471-2000 approved 2000-09-21 |
| 13 | ISO/IEC WD3 42010 Systems and Software Engineering — Architectural Description, JTC1/SC7/WG42, 2008-09-14 |
| 14 | ISO/IEC 62264 Enterprise-control system integration Part 1: Models and terminology, IEC/FDIS 62264-1:2002(E) Part 2 Model object attributes, contains IEC 65A/366/CVD, date: 2002-08-02, no additional definitions |
| 15 | ISO/TR 13283 <i>Industrial automation — Time-critical communications architectures — User requirements and network management for time-critical communications systems, Ref: ISO/TR 13283, first edition, 1998-12-15</i> |

References II- Public Domain Dictionaries used in the glossary

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| 1 | Collins Dictionary , 1987 |
| 2 | Concise Oxford English Dictionary (COED) |
| 3 | (Langenscheidt) Longman, Dictionary of Contemporary English , 2003 |
| 4 | Wikipedia |
| 5 | Webster Dictionary , Encyclopedia Edition 2003 |
| 6 | WordNet /2.1 |
| 7 | ISO/IEC JTC1/SC7 3941, FCD 24765 - Systems and software engineering vocabulary, 2008-03-14 |

References III – relating to the work of the study group

- [1] *SC5 Res. 391 (Beijing, 2001-05-17/18): As a simple, first step in addressing the complex issue of vocabulary consistency and, when needed, harmonization, SC 5 asks its WGs to observe the following two-step guideline:*
- 1. each SC 5 WG should first ensure that terms and definitions are consistent within a standard or series of standards for which it is responsible;*
 - 2. each SC 5 WG should then compare its standard(s) against relevant standards from other SC 5 WGs for consistency.*
- [2] *SC5 Res. 418 (Las Vegas, 2002-04-18/19): As a follow-up to SC 5 resolution 391, SC 5 agrees to form a study group on vocabulary consistency and asks Kurt Kosanke to lead this group. SC 5 asks its secretariat to issue a call for participation in this study group and forward contact details of the participants to Mr. Kosanke. SC 5 directs this study group to conduct its work on a purely electronic basis and to use existing efforts, such as the BSR, in its work.*
- [3] *Document list of Terminology Study Group (see attachment 1)*
- [4] *Loehrlein, A., Martin, R., Robertson, E. (2006), Integration of International Standards in the Domain of Manufacturing Enterprise, presented at ISKO2006.*
- [5] *SC5 Res (Monterrey, 2006-25/26 2) SC 5 thanks Richard Martin and Kurt Kosanke for their final report and recommendations on terminology issues. SC 5 asks its secretariat to forward this to the TC 184 Secretariat for distribution to all the TC 184 SCs.*
- SC 5 asks Kurt Kosanke to convene a meeting (electronic or otherwise) of the SC 5 project editors by 2007-03 to refine the vocabulary set and taxonomy produced by the Study Group. SC 5 asks that this meeting also produce a plan on how to use and maintain this vocabulary set and taxonomy*
- [6] *List of SC5 Workgroup editors (see attachment 2)*

Attachment 1
ISO TC184/SC5
Vocabulary Study Group Document Registry

| <u>N</u> | <u>Title</u> |
|----------|----------------------------------------------------------------------|
| VN1 | <i>SC5 Terminology Project Report SC5 Plenary 2004</i> |
| VN1a | <i>Table A-1 and A-2 Terms and Definitions used in SC5 Standards</i> |
| VN1b | <i>Table a-3.1 SC5 Corpus Word List</i> |
| VN1c | <i>Table A-3.2 – 3.13 Keywords</i> |
| VN1d | <i>SC5 Corpus Two Word Phrases</i> |
| VN1e | <i>Table A-3.14 SC5 Corpus Two Word Phrases by First Word</i> |
| VN1f | <i>Table A-3.15 SC5 Corpus Two Word Phrases by Second Word</i> |
| VN1g | <i>Table A-3.16 SC5 Corpus Two Word Phrase Keywords</i> |
| VN1h | <i>Table A-3.17 SC5 Word Clusters of 2 and 3</i> |
| VN1i | <i>Table A-3.18 Resource Concordance</i> |
| VN2 | <i>SC5 Terminology Project Presentation SC5 Plenary 2004</i> |
| VN3 | <i>JJM-Terminology Summary</i> |
| VN4 | <i>JJM-Terminology concerns</i> |
| VN5 | <i>KK-SC5 Terminology Summary</i> |
| VN6 | <i>SC5 Terminology Project Presentation SC5 Plenary 2005</i> |
| VN7 | <i>AL Terminology Summary Analysis</i> |
| VN8 | <i>SC5 Taxonomy Initial Proposal</i> |
| VN9 | <i>SC5 Terminology Study Group Final Report (SC5 N895)</i> |
| VN10 | <i>Terminology Study Group Supplementary Survey</i> |
| VN11 | <i>Survey cover letter</i> |
| VN12 | <i>Survey Summary</i> |
| VN13 | <i>Table 112-1 SC5 terms and recommendations</i> |
| VN14 | <i>Table 112-4 SC5 terms without recommendations</i> |
| VN15 | <i>Table 112-5 SC5 terms with final draft comments</i> |

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Attachment 2

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